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COLMAN'S RURAL WORLD.

DEVOTED TO AGRICULTURE HORTICULTURE HORSES CATTLE SHEEP SWINE ETC.

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Sixty-Sixth Year.

ST. LOUIS, MO., FEBRUARY 6, 1913.

Volume LXVI. No. 6.

Thirty Years at Institute Work

By C. D. Lyon.

In all my experience I have never been treated with actual discourtesy by an audience, or rather by part of it, but twice both times in western states, and both times by a dozen or two young men who thought that they were doing something smart.

The first time I was talking on the Home Garden, and I noticed that just after I began to talk, the chairman of the meeting left the room, but I kept on talking for a few minutes, when a chorus of laughter came from the back of the room. I stopped the talk and when I began again the laughing began again, but the next time I began to talk I thanked the audience for the courteous and gentlemanly treatment accorded me, picked up my hat and went to the hotel.

The next day I was to talk again, and when a few prominent farmers called on me at the hotel I told them of the occurrence, and said that so far as I was concerned, that the institute was at an end. In about half an hour four young men called on me, and I never before or since heard young men make as humble an apology as those fellows did, and they wound up by asking the "honor of escorting me to the hall," where I never held a better session.

The other time things did not turn out as well. Half a dozen young men on the back seats kept their hats on, and about every three minutes they took a fit of coughing as if they all had whooping cough. The chairman had no control over them, and the meeting, which was a small one, adjourned, but the editor of the local paper had taken the matter up, and five young men, after receiving the worst lecture I ever heard a police magistrate give, got a fine, "\$10 and the costs, and you all stand committed until fine and costs are paid."

At a certain county seat in Missouri, one of those most remote from a railroad, Colonel Waters and I held a corn show in 1903, and through an error in the work of a secretary, the exhibit of a certain man who had ten of the largest ears of corn I ever saw was overlooked. The owner of the corn had brought it twelve miles mule back, and after the awards were made, he went up to the Colonel and asked him to tell him why I, who had judged the exhibit, had given first prize to a ten-ear sample not nearly as large as his own. This brought out the error in the entry book, and I got up to announce the fact, telling the people that much as we regretted the matter, we would be obliged to revise the awards, when the man who had taken first prize under the mistake raised a row. The prize was \$5, if I mistake not, and he swore that if the State could not send out men who could say a thing and stick to it, he



MY MAJOR DARE, OWNED BY COL. PAUL BROWN, ST. LOUIS, MO.

My Major Dare's breeding: He is by My Dare 2642 by Chester Dare No. 10, by Black Squirrel, 58, by Black Eagle 74. His dam, Lilly Rosebud 7138 by Elastic 233 by Red Squirrel by Black Squirrel.

would sue the corn show for the \$5, but the next day he had cooled down and apologized for his hasty words.

These incidents are given to show what a man who has been before the public for many years has to contend with, but, in my experience, I find ten thousand men who are true gentlemen to one who is not.

The late Ben Kingsley of Nebraska was one of the best posted horseman I ever knew, and in an evening talk he used to make, gave the story of the evolution of the horse, as traced in fossil remains, from the diminutive eohippus on down through the fossils as shown in various museums the world over. I heard the talk a dozen times and it always was new to me, but at one meeting Ben roused the ire of some fellow who believed "from kiver to kiver," and that fellow wrote the superintendent, urging that "infidels and unbelievers" be kept from before the people. Kingsley, who was a strict churchman, got the letter, and it was a never-ending source of amusement to him.

But I was once of a party of institute lecturers, before a superintendent to show him what we could do in the way of talk, when a man who had been a college teacher, in outlining his talk on soils, mentioned "the action of glaciers, millions of years ago." "The boss" called him to order at once, and told him that no "millions of years goes, for the good old Book tells us that the world was made in six days." I do not like to tell this, but the people of one state at least, had that man as State Superintendent of institutes for two years.

GRANDIN (MO.) NOTES.

Editor RURAL WORLD: This great paper gets more and more the brotherly love mixed up between the farmers of this great country in which we now live, it brings many minds to wonder what will be next. I see in last week's paper a friend that has taken an off-hand shot at my dictation, that the man suggests that four litters of pigs to be an impossibility in 12 months, and that in so doing that he would have to have a good boar and a pregnant sow and an incubator. I have a very poor education and don't understand things just as I might, but I would like to see the color of my friend's hair that was born in eastern Tennessee in the year of 1856 and emigrated to the southeast part of Missouri in 1860. He was quite a man to emigrate in 4 years after his birth, and went to clearing up land and making rails among the wild cats and panthers, and he didn't say, but I'll bet my old hawk bill pruning knife that the mosquitoes were more of a pest to this immigrant than all the varmints that roved the woods in that day and time. My friend surely did not think that one boar would be able to run this wonderful sow with her incubator combined. Certainly not, it would require a regiment of boars to complete such an invention. Just read the book of Revelations and see what it says.

This January 28th weather cloudy, threatening rain. Have had some real bad weather and had to content ourselves around the fire. Had an awful icy time, some orchards almost ruined all on account of the owners' neg-

ligence and what I call own carelessness from lack of pruning and cutting back as they should be. Only three small limbs were broken from my orchard of over 500 fine thrifty bearing trees of all varieties of fruit. Peaches are all right yet and in good condition; strawberries are not hurt any yet and plants looking fine. Blackberries are in good condition.

I see in the Globe-Democrat where they lost their oranges in California in spite of their fires to heat their orchards, that orchard heating is all bosh. That reminds me of a preacher who used to preach here at Grandin. He set out a patch of strawberries in town in a very low place. I am the only man now living here that raises many berries and I will say this, God being my helper, I have had very good success. I was in town one day with some strawberries and I sold this preacher some, and he says to me: "I am putting out a patch of strawberries in my garden, how do you think they will do here where I live?" I said: "I don't think they will do well here where you live." He wanted to know why and I told him it is very low here where you live and I think the frost will kill them when they are in bloom, and then he said: "I will cover them up. Did you ever try that?" I said, "No, I always cultivate my berries all through the summer and that is all that is required for my part; then they are up to God Almighty, and if it is His will to take them from me they are His. I never cover anything up from God Almighty. He has said that he that maketh a living by the sweat of his brow shall reap and shall not want. Then let us not think that we will run God's part, if we only run our own we will do well."

Another little incident occurred here in town with another preacher. He was trying to do his own blacksmithing and couldn't get the right heat on his iron and he come to town to take a few lessons from a professional blacksmith and while he was standing around watching this smith blow his forge, it was very warm that day, and this preacher was wiping sweat for the mischief, and he said: "Why is it you are right over that hot fire and don't sweat any, and here the sweat is just pouring off of me."

The smith stopped and said: "I am acclimated for the next world and you are not, so you had better begin to make preparations." G. W. J.

THE LIVE STOCK SHORTAGE.

Farms generally speaking are understocked and this condition largely contributes to the high cost of beef. Farms are also short of labor and they cannot ever be put in their most profitable condition with this lack. Land must be properly drained, systematic rotation of crops, proper feeding of animals on the farm and the return of farm manures to the soil as well as the supplying of lime or phosphorus are essential to permanency in agriculture.

Horticulture

THE NODULE ON LEGUMES.

Editor RURAL WORLD: The statement appears in your paper from (what I infer) a professor in the Missouri Agricultural College, placing the nodule bacteria in the same class with other nitrogen gathering bacteria. I don't believe your paper has any interest in concealing the facts on that point. I assume you are impartial. That evidence can be presented in a very small space and we want to ask you to allow it and we want to ask the professor to present it. We don't want what it did when on the plant but what it did off the plant. It is what it did off the plant that would entitle it to be classed as a nitrogen gatherer, and in a class with those named. We want the success and failure both given, and see if on the average there is anything left.

When Wilfath and Hebreigel made that claim it was without a detailed study of the entire field of legumes. The Agricultural Department has come to a study of the velvet bean, probably the most riotous growing legume known. We copy from page 217, year book of 1910: "It is true that the cycadaceae (the bacteria inhabiting the velvet bean) has no agricultural significance. Whatever value they may have for present investigation will be comparative and will depend upon the possibility of learning the role which they played in the maintenance of the nitrogen supply.

Here is an admission from Kellerman that we do not know the role the bacteria performed in the nitrogen supply, and it comes after 20 years' study. If the evidence sustained the professor's idea who placed the nodule bacteria in the class with true nitrogen gathering bacteria, there never could have been a dissenting voice and it would have been unnecessary to have passed it over all dissenters by popular vote. The claim of the professor is not supported by any evidence that would entitle the claim to be called a scientific fact and he probably knows that. It is not a nitrogen problem, but a protein problem that is solved with sulphur. W. H. ARNOLD.

BOYS' CORN CLUB CONTEST.

Boys' Corn Club Contests, started a few years ago by Secretary Wilson through the Bureau of Plant Industry of the U. S. Department of Agriculture, have become so successful and popular in the South that the movement has become national in character. A recent circular of the Bureau of Plant Industry, is an interesting contribution to the subject.

"The national corn club is an important factor," says the circular, "in directing rural boys to the business of farming as a profitable and noble profession. The boys are needed for the efficiency of the farm and their work and leadership must be had if American agriculture is to keep step with the march of civilization."

In connection with organizing and directing clubs the circular says: for its main interest the promotion and encouragement of the regular club work. The premium should represent the greatest need and interest of the corn-club membership; it must teach the broad viewpoint of the club work and encourage both members and leaders to be progressive and constructive in their work, and it should serve to increase the club members' interest and respect for farm life.

"Club leaders, county superintendents, teachers, and others interested in promoting agricultural and rural-home interests should lose no opportunity to have club exhibits and interests recognized effectively at county, district, and State fairs. County farmers' institutes, short courses, and teachers associations are excellent mediums for

promoting the club work, and an exhibit of club products, special contests, essays, and general discussions on phases of the work should occupy some place and time during the regular session."

MEXICAN FRUIT FLY.

The fact has been determined by the Secretary of Agriculture that an injurious insect known as the Mexican fruit fly (*Trypetia ludens*), new to and not heretofore widely prevalent and distributed within and throughout the United States, exists in the Republic of Mexico.

Now, therefore, I, James Wilson, Secretary of Agriculture under authority conferred by section 7 of the act of August 20, 1912, known as "The plant quarantine act," do hereby declare that it is necessary, in order to prevent the introduction into the United States of the insect known as the Mexican fruit fly (*Trypetia ludens*), to forbid the importation into the United States from the Republic of Mexico of the following fruits: Oranges, sweet limes, mangoes, achras sapotes, peaches guavas, plums.

Hereafter, and until further notice, by virtue of said section 7 of the act of Congress approved August 20, 1912, the importation or entry into the United States for any purpose of the fruits hereinbefore named and their horticultural varieties is prohibited.

Done at Washington this 15th day of January, 1913. Witness my hand and the seal of the United States Department of Agriculture, James Wilson, Secretary of Agriculture.

FARM CANNING FACTORIES.

Farmer, you are the man of all men naturally fitted to can your own crops, and do so at home using all of the family large enough to work, to help you grow and can same. This gives you a home market for your crops, and profitable employment for all of your family. Read this:

"Mr. Thomas M. Brown, Springfield, Mo. Dear Sir:—I have my cannery business for 1912 rounded up. Packed 4,400 cases or 105,600 No. 3 cans tomatoes this year. I grew 4 acres myself and bought the rest from my neighbors at \$8.00 per ton.

"I made this year after paying all expenses for canning and paying for the tomatoes I bought, over \$1,800, and feel pretty good over results for a small farmer with small investment in your \$330 canning outfit.

I have in the last 5 years got rid of a big mortgage on my farm, paid a lot of outside debts, improved my farm well and stocked it up in good shape and have money in the bank. Made it all on your factory.

When I bought it I was a poor man badly in debt with a family of a wife and several small children to care for. J. H. SPEARS.

If you want to start in the best business in your reach, write Thos. M. Brown of Springfield, Missouri, for free booklet. It will give you over 100 testimonials with the addresses of the canners writing same, so you can investigate for yourself.

He sells his factories on time or 10 or 15 per cent of the pack as payments until paid for. No chance to lose a dollar. He makes 16 sizes for the farm or large community, prices \$85 to \$850. You can own a home or pay the debt on the one you have if you will try.

The Apiary

A NOTED BEEKEEPER'S METHODS.

In Schenectady county, N. Y., W. E. Alexander is a beekeeper of more than local repute. He has recently constructed a large house which has all the requirements for scientific bee

Towers' Surface System

Kills weeds; damages no corn roots; enlarges yield

Towers' Cultivator stirs every inch of ground between the rows; makes a dust mulch—to retain moisture and furnish liquid food for the plant; preserves crop roots; slathers weeds; prevents "firing" of corn. Increased yield, earlier maturity of corn, cotton, potatoes, etc., will result if your 1913 cultivator has the name

"TOWER" on the tongue

Lighter draft on team; easier to manage—a boy can do it. Send a postal for our free "Treatise on Corn Culture."

J. D. TOWER & SONS CO., 5th St., Mendota, Ill.

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Four generations of fruit tree growing experience, boiled down, is ready for you absolutely free of charge. Don't expect fruit trees of unknown productivity, uncertain quality. Stark Trees always pay big. The secret is in Stark Brothers' perfect method of growing, transplanting, packing and shipping.

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Why don't you take advantage of our Special Service Department? All Advice Free! Write us and we'll send you the best scientific methods of preparing your soil for greatest production; how to prune your trees, give you best methods of Stark cultivation; how to spray the Stark way. We make your orchard a winner and a big money maker. Write us at once for Stark Year Book, complete fruit tree literature and statistics. Write today.

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housing and honey handling. The house is built in a bank, two stories high, is 24x56 feet, and has a cellar capacity for 750 colonies, which it is now carrying. The walls around the storage room, which is 40x24 feet, are of stone masonry, 18 inches thick, without air chamber. The floor is matched lumber laid up from the ground; the floor above is double with paper. A storage room 16x24 feet is cut off on the lower floor. Here are found four large tanks, made of wood, tin-lined, each 28x35 inches by 8 feet, and hold two tons of strained honey. They set up from the floor 2 feet each, and are fitted with 1½-inch faucets. The honey is taken in at the opposite end of the building upon the second floor, which is level with the ground. From here it is conveyed in a 2-inch spout through a receiver in the floor, a distance of 40 feet, to these large tanks.

A shop or workroom is built in the second story above the storage room. The balance of the floor space is used for storage. The outside wall above the stone work is ship lap upon the studs, 2x4 inches, paper and clapboards. The building has eave spouts, is neatly painted and cost about \$1,000. The ventilation, upon which Mr. Alexander has spent much time and study, seems complete. A 6-inch stovepipe is placed from the ceiling in the center of the bee storage to the chimney which is always in operation. As proof of the efficiency of this scheme for carrying off moisture, ice had formed at the joints in the pipe during the cold weather just preceding my visit.

Four trap doors are also cut into this floor. They are used as supplemental ventilators. They may be opened more or less to maintain a temperature as nearly as possible between 40 degrees and 45 degrees. The hives are set four rows deep and five high, upon racks 6 inches from the floor. A space is left between the hives, and the individual hive covered with canvas. Examination showed a lively, healthy condition inside.—H. E. Cook.

SEED CORN

JOHNSON COUNTY WHITE.

We grow it, and only offer what is grown on our own farm, from the very best seed. No one has better seed, and no one can afford to sell good seed cheaper. Prices: Crated ears, \$3.00 per bushel, select shelled, \$2.50 per bushel. A few bushels of Boone County White, same prices. Better order early.

C. D. Lyon, R.R. Georgetown, Ohio.

Seed Corn Reid's Yellow Dent Boone County White

Strictly pure bred, grown on our own farms from extra choice seed. Quality, good as the best. We won 1st in Capper Corn contest for best single ear in state and 1st for best 20 ears at Missouri State Corn Show, 1912. Guaranteed to please you. Send for samples and prices.

F. M. RIEBEL & SON, Arboia, Missouri.

SEED CORN

Boone Co. White, Johnson Co. White.

R. Y. Dent and Leamling crated, \$2.50. Shell ed, \$2.00. Stored and dried in a modern seed house and thoroughly tested. Shipped on approval. Regenerated Swedish Select Oats. Cat. free.

OAKLAWN SEED FARM, Chatham, Ills.

SEED CORN.

Reid's Yellow Dent shelled and graded; guaranteed to grow, \$1.50 per bushel. Choice timothy seed \$2.75 per bushel. John McDani el, R. R. No. 6, Box 41, Memphis, Mo.

CLOVER RED, MAMMOTH, ALSYKE, BLUE GRASS, TIMOTHY.

Send for prices and samples.

J. V. PROCTOR SEED CO., Monroe City, Mo.

TOBACCO DUST

\$18 PER TON

The best fertilizer in the world for the orchard or garden.

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FREE Our handsome Seed Catalogue. Send your address on a postal today, or for a 2c stamp and the names of two neighbors, actual seed buyers, catalog and packet Early June TOMATO Seeds earliest variety known, if sent before March 15. Address E'S SEED STORE, Pella, Iowa.

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The Poultry Yard

DECEMBER RECORD IN NATIONAL EGG LAYING CONTEST.

The second National Egg Laying Contest at Mountain Grove, Mo., is proving much more satisfactory, in every particular, than the first contest. While many birds are not yet mature, yet every pen had laid some eggs before the close of the first month. The total for the first six weeks is 5,954 eggs. The English pen of S. C. White Leghorns, No. 2 leads with 263 eggs. Silver Wyandottes, pen No. 23, is second with 217 eggs. White Wyandottes, pen No. 28, are third with 185 eggs. The yield for the first few weeks was not equal to that of last year because the birds are practically all pullets this year, and large numbers of them are not mature, but last year large numbers of them were hens and laid early in the contest and fell off later. The yield has increased rapidly each week and we are now getting a 33 1/3 per cent egg yield from the entire flock, and still gradually increasing.

The English Pen of S. C. White Leghorns won the silver cup for December with a record of 222 eggs. This pen is getting quite a good lead over the other pens. They continue to be more active than any pen in the contest, and are consuming quite a good deal more dry mash than the other Mediterranean varieties. These birds differ from the American Leghorns in the fact that they have larger combs, tails are not well spread and rather high, and eyes are not bay in color. They are an interesting lot of birds, however, and seem to have the ability to lay. Their eggs are not of an uniform dead white color, like many of our American strains of Leghorns.

Our Feeding Test.

In connection with our egg laying contest, we are trying out ten different methods of feeding. The birds used in this test are one-half Buff Orpingtons and one-half White Leghorns. The Orpingtons are all of the same breeding, all pullets, and as near the same age and weight as we could get them. The White Leghorns are composed of four pullets and one hen in each pen, of the same breeding, same age and practically same weight. The exact method of feeding one of these pens will be announced each month. You can make note of the formula used and watch the results. You can be your own judge as to the practicability of each method. We expect to also be able to determine the most economical method for use in this section.

Scratch Grain Mixture.—60 lbs. cracked corn, 60 lbs. wheat, 40 lbs. heavy white oats, 20 lbs. barley, 10 lbs. kafir corn, 10 lbs. buckwheat, 10 lbs. coarse beef scrap.

Dry Mash Mixture.—200 lbs. coarse wheat bran, 100 lbs. corn meal, 100 lbs. gluten meal, 100 lbs. ground oats, 75 lbs. standard middlings, 50 lbs. fish scrap, 50 lbs. beef scrap, 25 lbs. low grade flour.

A Norwich Automatic Feeder is used for the grain and the birds are allowed to feed themselves, except during the long summer days. It may be necessary to close the grain feeder a part of the time. The dry mash is

Your Winter Harvest in Eggs

There's not the slightest reason why every poultry raiser shouldn't have a harvest in eggs right now when eggs are high. Hens, *your own hens*, have a tendency to grow fat and lazy and the egg organs to become sluggish. This may be due to lack of exercise, the absence of green food and to other causes. But whatever the cause, remember that

Dr. Hess Poultry Pan-a-ce-a

positively tones up the dormant egg organs and takes the hens out of the loafer class and makes them lay eggs for market right when prices are the highest. It keeps hens hungry for their grain, so they remain busy all the time scratching for a living—and it's the busy hen that does the cackling and the more cackling the more eggs.

Note the formula for Pan-a-ce-a in this advertisement; the definitions of ingredients are taken from U. S. Dispensatory and our best writers. With the formula on the label there can be no exaggeration of claims. You can look up the ingredients in any medical dictionary, and besides every Hess & Clark preparation is guaranteed.

Our Proposition:—Feed your hens Poultry Pan-a-ce-a right now when eggs are scarce; if you have the least shadow of doubt that it has not made your hens lay more eggs and kept them free from disease at a cost of only a penny a day for 30 hens—take to the dealer the empty package and he is compelled to refund your money. 1/2 lbs. 25c; mail or express 40c; 5 lbs. 60c; 12 lbs. \$1.25; 25-lb. pail \$2.50; except in Canada and extreme West. If your dealer cannot supply you, we will. Send us for Dr. Hess 48-page Poultry Book, free.

DR. HESS & CLARK
Ashland, Ohio

DR. HESS STOCK TONIC improves digestion, increases the appetite, expels worms. Bulletin No. 22, U. S. Department of Agriculture, says: "Only 60 per cent. of the food taken by stock is digested." You know yourself that you can fatten hogs on the corn that passes through the steers undigested. "The Dr. Hess Idea" is to save a part of this wasted feed by *increasing digestion*. The formula is on every package and the U. S. Dispensatory, or even a medical dictionary, will tell you whether the ingredients will produce the results claimed. And, besides, it's sold only on a written guarantee. 100 lbs. \$5.00; 25-lb. pail \$1.60. Except in Canada and extreme West and South. Send 2 cents for Dr. Hess Stock Book.

FREE. Dr. Hess (M.D., D.V.S.) will at any time prescribe for your ailing animals free of charge if you will send him full details. Mention this paper and send 2-cent stamp. 48-page Veterinary Book also free.

INSTANT LOUSE KILLER KILLS LICE

kept in a hopper or receptacle for that purpose. The mash, as well as grit, shell and charcoal, are kept continually before the birds. Succulent food consisting of apples, mangel wurtzels, green cut corn, or dried beet pulp may be used. The dry beet pulp is used principally, and is soaked in water (and usually warm) for about an hour before being fed. It consists when dry of about 8 per cent of the dry mash by weight.

In the feeding test, in pen 68, where feed of twenty-eight different kinds is kept before the birds at all times, these pullets made a rapid gain on the other pens toward the last of this month. Our prediction is that they have been or are being stimulated to high production and may keep it up for a time, but will finally become overfat, drop off in egg production and break down in health. It is going to be interesting to see just what they will eat, the greatest quantities of what they like best, and what the final results will be as to their general health and the number of eggs laid under this method of treatment. More pullets are now laying in this pen than any other. We also keep buttermilk and water before them at all times and record the amount of each consumed.

We are feeding ground meat and ground mustard to one pen, No. 66, but so far it has not made much of a record. The farmer's method of feeding where the hens get a very simple ration, the yield thus far indicates that it might pay the average farmer to buy a little beef scrap, alfalfa meal,

and a few other ingredients to add to his rations.

These one hundred pullets used in this feeding test are laying many more eggs daily than two hundred of their full sisters on the outside which are not being fed as heavily as these in the tests. This is but another proof that if you want eggs in winter, your hens must be fed liberally.

AN UNSURPASSED RECORD.

"Bred in the Bone" is no doubt the solution to the wonderful productive vitality as vouched for by the records in the case of the W. P. Rock hen mentioned in the following letter. It is a fact which cannot be refuted, that the vital foundation must be laid in young chicks, if the matured fowls are to be strong and productive, and Mr. Bickerdike (as well as many thousands of other breeders of fine poultry) has found the successful route to travel; but read the letter:

Pleasant View Poultry Farm, Millersville, Ill., Dec. 16, 1912. W. F. Chamberlain Feed Co., St. Louis, Mo. Gentlemen:—You will probably be interested to know that my White Plymouth Rock Hen, "Lady Showyou," winner of the National Egg Laying Contest at Mountain Grove, Mo., with a record of 82 eggs in 82 days and 281 eggs in the year; and recently sold for the sum of \$800.00 was reared on Chamberlain's Perfect Chick Feed.

It takes great vigor to make such an egg record, and your feed gives the chicks the right vigor. I have used it in rearing my Pedigreed White Plymouth Rocks for many years.

You are at liberty to make any use of this letter you wish. Very truly, J. A. Bickerdike.

Dry-picked poultry will stand longer shipments than those that are scalded.

No successful poultry plant was ever established with mongrel stock. Dung-hill fowls like innocent labor are not worth having around. Thoroughbred fowls like skilled labor are sure to create a profit for the farm.

There is but one way to build up the utility of a flock, and that is by proper selection. If each year the eggs from

FOR THE NEXT 30 DAYS I WILL sell at \$1.00 each some choice breeding stock. Both cocks and hens. White and Brown Leghorn and Barred P. Rocks. Order early to get the best. E. W. GEER, Farmington, Mo.

We duplicate all infertile eggs. White and Columbian Wyandottes, Single Comb White Leghorns, and Light Brahmans. We use trap nests. In business for 30 years. Brahma eggs, \$3 for 15; \$5 for 30. The other varieties, \$2 for 15, \$5 for 50, \$10 for 100. Address, Michael K. Boyer, Box 2, Hammonton, New Jersey.

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GOOD POULTRY
a quarterly magazine, devoted to special crops and intensive farming, with special attention to the care and handling of poultry. Tells how to make \$200 per acre per year on any farm from 5 to 100 acres. Good Poultry alone, 10 cents a copy; 25 cents a year. Agents wanted, write today.

SHOREWOOD FARMS CO., Saugatuck, Mich.
City Office — 11 N. Market Street, Chicago, Illinois

only the best layers are used for hatching purposes, each generation will become the more prolific; and this can also be greatly assisted by securing new males from some strain that has been likewise carefully selected. In this work of selection the trap nest is the only reliable indicator.

If commonsense, and less doctoring were applied to ailing hens, there would be less spread of contagion. When hens are busy they are as a rule healthy. Nip a cold in the bud, and there will be no need for roup cures. Keep the premises in a strict sanitary condition, and there need be no fear of cholera. Nearly all of the diseases that affect poultry needlessly are the effects of unsanitary surroundings, due to carelessness. In general, the treatment of diseased is not so satisfactory as preventive measures. Nowhere more than in the poultry business does that old adage apply: "An ounce of prevention is worth a pound of cure."

\$3.95
Incubator and Brooder
Holds 2 Sittings of Eggs.

Chamberlain's
Perfect Setting Hen.

Always Ready to Set.
The only Original Dry Baby Chick Feed.
No Corn—No Bowel Trouble.



\$3.95
Incubator and Brooder
Holds 2 Sittings of Eggs.

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Horseman

Every week you will note an improvement in the horse department of the RURAL WORLD, and with this end in view we respectfully solicit news items from horsemen throughout the state. Let us know what you are doing and intend to do with your string the coming year. This news will be interesting to other horsemen.

O. M. Stewart, of Paris, Ill., has moved to Claude, Tex., for his health. Stewart has had a fairly successful campaign with his chestnut trotting gelding, Indian, by Zenda, son of Onward. Indian's first four dams are by Spanish Cavalier, Dr. Herr, Algeria Wilkes and Dr. Herr. Indian started 12 times and was 6 times first, 2 times second, 2 times third, had a split of second and third and a split of third and fourth, was never behind the money and won \$1,080.

Hallie McGregor 7, 2:24½, is a bay mare by Red Major, 2:18½, son of Nutgregor, 2:17½, dam Eager Maid by Eagolyte, son of Onward; second dam Devotion by Blackwood 74; third dam Cathedral by George Wilkes. She is owned by F. M. Woods of Butler, Mo., and was driven by C. C. Woods of Butler, Mo., who bred her and gave her what very little training she has had. She started 10 times in 1912, and was 3 times first, 4 times second, 2 times third, once fourth, and never behind the money, winning \$640.

Signal Boy 2:14½ was practically a new trotter at the beginning of this season, which he opened in a whirlwind sort of fashion, winning his five first starts. He was the first trotter this season to take the measure of the good trotting gelding, Right Guard, 2:09¾, but losing the next two races to Casey's mount. Trainer and owner, A. E. Robbins, of Good Hope, Ill., did not engage the son of Signet very extensively, as his previous showing did not warrant it. But his half-mile track campaign was a grand success, winning five firsts and two seconds in seven starts, all in and around 2:15 makes him look like a good trotter for next year.

Starting colts and young horses on heavy work not only lowers their condition and health, but is liable to cause sore shoulders. First, the collar should fit snugly; it should have a smooth surface, be clean and be kept clean. Dirt and filth on the skin of the horse closes the pores of the skin just the same as on men. When horses are out in the pasture during the winter they do not need grooming, but as soon as they are put to work and kept in the barn they must be kept clean. A large amount of waste material of the body is passed off through the pores of the skin, and for that reason they must be kept open by grooming; night and morning, if the highest efficiency is to be obtained in the horse.

HORSE SHOE LAKE FARM.

The Home of My Major Dare, Owned by Col. Paul Brown.

Editor RURAL WORLD: You asked me to tell you something about my Horseshoe Lake Farm. It is situated in the southern part of St. Louis County on the banks of the Meramec River. About half of my farm is in the bottom, cultivated land, and the remainder on the hills in blue grass. These hills are quite rolling and are underlaid with limestone rock. I am told blue grass from such soil is the very best for horses. I am also told that rolling or hill land is the very best for horses, as the exercise they get running up and down the hills expands their lungs and gives them more endurance than horses raised on level plains. I engage in general farming, horse and hog raising for the purpose of taking up my surplus grain. The bottom lands of my place are very fertile and I usually raise good crops of corn.

My principal object in obtaining the Horseshoe Lake farm was that I might raise saddle horses. I have skipped around from one horse to another—started without very much information relative to saddle horses and made a good many mistakes in getting a suitable horse to go at the head of my herd.

I now have the great saddle stallion My Major Dare 4424, and when I say I think My Major Dare is the greatest living saddle stallion to-day I believe I tell the truth. (This does not prevent other horse owners from thinking their horse is the best.)

My Major Dare's breeding, in my judgment, cannot be excelled from a saddle horse standpoint. He is by My Dare No. 2642, by Chester Dare No. 10, by Black Squirrel No. 58, by Black Eagle No. 74. His dam, Lilly Rosebud No. 7138, by Elastic No. 233, by Red Squirrel, by Black Squirrel.

I will not go into the breeding of this horse extensively, but any man who understands reading a pedigree will know that what I have given you is very hard to beat, if, indeed, it is possible to excel it. My Major Dare's conformation is perfect from a saddle horse standpoint. He is 15 hands 3 inches high. He has a nice flat bone sufficiently large for his weight; a well rounded body with short back—just room for a saddle. In color he is a golden bay with very black points. His performance is of the very best, and if I see My Major Dare defeated in the show ring by thoroughly competent and honest judges I shall expect to see the most interesting performance ever witnessed in a show ring, because the horse that defeats him before honest judges will have to be a tremendously wonderful performer.

When I saw My Major Dare show at the St. Louis Horse Show last fall I had not the remotest idea of buying him, but his show carried me beyond myself and I found myself gradually getting nearer to him as the days went by—and I finally got near enough to buy him. Some of my friends wanted to know what I wanted with him. My reply was, I simply wanted to own the best saddle horse in the world. I think I got him when I bought My Major Dare.

You perhaps would like to know something about some of the others I have in connection with My Major Dare.

I have Alice King 3890, sired by Forrest King 1462, by Squirrel King 973; dam Mayflower Artist 2501, by Erin Artist 150.

Then comes Aurelia No. 3504, by Chester Chief 1129, by Chester Dare 10; dam Jane T. 2020, by Royal Chester 926.

Lady Rex Mc No. 4006, sired by Rex McDonald 833, by Rex Denmark 840; dam Maud W., by Harrison Chief 1606. Cappeln No. 824, sired by Chester

Dare, by Black Squirrel; her dam Hackett's Peacock.

Mayla No. 6811, sired by Rex Denmark, by Crigler's Denmark; dam Fancy, by Aaron Pennington.

Show Me No. 6845, sired by Star Rex 2nd, by Rex Denmark; dam Fannie, second dam Trouble 1612.

Brown's Zuleika No. 7762, sired by Rex Monroe 2063, by Rex McDonald 833; dam Missdeal, by Misdeal.

Ima Denmark No. 7513, sired by Rex Monroe 2063, by Rex Denmark; dam Show Me, by Star Rex, second by Rex Denmark 840.

Ima Lady No. 7512, sired by Rex Monroe 2063, by Rex McDonald; dam Lady, by Grattan.

Trixie Denmark 7511, sired by Rex Monroe 2063, by Rex McDonald; dam Ellen, by Grattan.

Rexie Brandt No. 9837, sired by Rex Denmark 840, by Crigler's Denmark; dam Cappeln 842, by Chester Dare 10.

Lily King No. 9838, sired by Alpen Denmark 4528, by Rex Monroe 2063; dam Alice King 3890, by Forest King 1462.

Queen of the Ozarks No. 9839, sired by Rex King 3408, by Rex Vaughan 2033, by Rex McDonald 833; dam Show Me 6845, by Star Rex, second by Rex Denmark 840.

Dixie Denmark No. 10208, sired by Rex King 3408, by Rex Vaughan, by Rex McDonald; dam Lady Rex Mc 4006, by Rex McDonald; second dam, Maud W., by Harrison Chief 1606.

Virginia Mayla No. 10207, sired by Rex King, by Rex Vaughan, by Rex McDonald; dam Mayla 6811, by Rex Denmark, by Crigler's Denmark, etc.

Brandywine Denmark No. 4546, sired by Lord Highland 2799, by Highland Denmark 730, by Black Squirrel; dam Lady Rex Mc 4006, by Rex McDonald 833, by Rex Denmark 840; second dam Maud W., by Harrison Chief 1606.

Auto Denmark No. 5472, sired by Rex Monroe 2063, by Rex McDonald 833, by Rex Denmark 840; dam Mayla 6811, by Rex Denmark 840; second dam Fancy by Aaron Pennington 1336.

Austin's Dare No. 5889, sired by Edward Dare 2517, by Chester Dare 10; dam Aurelia 3504, by Chester Chief 1129, by Chester Dare 10; second dam Jane T. 2020, by Royal Chester 926, by Chester Dare 10.

If your readers are judges of pedigrees and will look over this list of mares and colts I am of the opinion they will have to decide, from a saddle horse breeding standpoint, there are some good ones.

I especially want to call your attention to Brandy Wine Denmark's breeding. This youngster combines all the Denmark any breeder ought to want, and, on his dam's side, as much Chief as any horse ought to have.

Take Auto Denmark; on his sire's side he is a straight Denmark, but on his dam's side he combines both Denmark and thoroughbred, as Aaron Pennington was a thoroughbred with the distinctions of having been registered in three registers, Saddle, Standard and Thoroughbred.

I would like for somebody to criticise the breeding of Austin's Dare, by Edward Dare, by Chester Dare; dam Aurelia, by Chester Chief, by Chester Dare. The man who likes Chester Dare stock ought to be well satisfied with this youngster.

While I am writing I want to say to you that there are a great many Saddle Horse men throughout the country not only in Missouri and Kentucky, but in other states where saddle horses are bred, who are complaining very vigorously about the restrictions in the registration of Saddle horses at this time. There has been quite a discussion in some of the papers relative to the reopening, as they term it, of the Saddle Horse Register. That is to say, allowing breeders to register other than the progeny of registered horse and mare. If you

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WILKNUT 42923, bay stallion trotter, star, left hind foot white, 16.1 hands; weight 1250 lbs. Foaled 1903, by Red Roy 2:15½, son of Red Heart 2:19. 1st dam, Monnuttia, 2:31, by Wilkeswood, 2:23½; 2nd dam, Miss Wickliffe, by Wickliffe 2520; 3rd dam Monitor Rose by Monitor 1327.

Wilknut is one of the best put-up stallions I have ever seen, for style and action he can't be beat. He was never worked for speed, but can trot fast. He can show a 2:20 gait any time. He is a sure foal getter and a grand breeder. Price, \$275.00.

MONDUKA 51549, black or dark chestnut stallion trotter, star, right hind foot white; 15.3½ hands, 1100 lbs. Foaled 1909 by Baron Reaper 2:09¾, dam Alpha C. Wilkes (mat. rec. 2:24), by Wilkesmont 2:28. 2nd dam Pinafore by Abdallah Jr. 5729.

Monduka is a handsome stallion, good gaited, good headed. He has not been trained, but can show better than 2:30 gait. I think he will be very fast if given a chance, and should make a great sire. Price, \$300.00.

MONITOR RUSSELL 33727, trotter, bay stallion, 15.3 hands; weight 1200 lbs. Foaled 1895 by Alley Russell 4502. Rec. 2:22, dam Monsulta, vol 13, by Sultan 1513. 8nd dam Monitor Rose, by Monitor 1327, 3rd dam Bay Dixie (dam of 3 in the list) by Abdallah Jr. 5720.

Monitor Russell is a big, strong, good looking trotter; he is a good road horse, afraid of nothing, looks like a ten-year-old. He is sound and a good stallion for any purpose. Price, \$150.00.

RESERVE FUND 5302, 2:26½, chestnut stallion, foaled 1885, by Nutwood 600, 2:18¾. Dam Lizzie Wilkes (in the great brood mare list), by Geo. Wilkes, 2:22; 2nd dam by Mambrino Patchen 58; 3rd dam by Edwin Forest 49.

Reserve Fund is the sire of 13 in the 2:30 list. He is a horse of the most perfect form, of the highest style and action. He looks and acts like a ten-year-old. He is one of the surest foal getters on the farm and should not be for sale, but we want Baron Reaper, 2:09¾, to take his place. Price, \$100.00.

WILKTELL 65018, dark chestnut trotter, 15.3 hands, 1000 lbs. Foaled 1910. By Wilknut 42923, son of Red Roy 2:15, dam Electwanda by Electeer, son of Expedition 2:16; 2nd dam by Reville 1472; 3rd dam by Strathmore 408.

Wilktell is a nice looking colt, will be 16 hands, broke to harness. Price, \$175.00.

MONTEITH 54685, bay, two hind feet white, trotter, 15½ hands; weight 1000 lbs. Foaled 1910 by Mondorf 22009, dam Monella by Saywa 12726, son of Onward 1400; 2nd dam Lady Elliston by Elliston 5387, son of Electioneer 125.

Monteith is a large, finely formed, good gaited, speedy colt. He showed quarters in 40 seconds as a two-year-old; he will make a fast trotter and a good stallion. Price, \$200.00.

NORWELL 56440, trotter, bay, right hind foot white, foaled 1911. By Reserve Fund 5302 (sire of 13 in the 2:30 list); dam by Electeer 31500, son of Expedition 2:15¾; 2nd dam by Reville 1472, 3rd dam by Strathmore 408.

Norwell is a shapely, good-built colt, sound and all right. Broke to harness. Price, \$125.00.

MONKELL, bay gelding, foaled Sept. 16, 1908, 15.1½ hands; weight 1050 lbs. By Mondorf 22009, dam Monella by Saywa, son of Onward 2:25; 2nd dam Lady Elliston, son of Electioneer.

Monkell is a very nice gelding, has been used on the road some; had no track work, but we timed him quarters in 41 at the trot and quarters in 36 at the pace. He would make a very fast horse if trained at the trot or pace. He is good gaited and good headed. Price, \$200.00.

MONJAY, bay gelding, small star and snip; two hind feed white; 15.1 hands; weight 950 lbs. Foaled 1910, by Wilkes Mondorf 22009. Dam Monjane by Wilkeson 22022, rec. 2:25; 2nd dam Jane Wilkes by Monitor Wilkes 6692.

Monjay is a good-looking trotter, he has lots of style, speed and action. He is one of the most promising colts on the farm. Price, \$200.00.

RESERVE VICTOR, chestnut gelding, 15 hands, 900 lbs. Foaled 1910; sire Reserve Fund 2:26½ (sire of 13 in the 2:30 list), by Nutwood 600, rec. 2:18; dam Monafare Belle by Wilkeson 2:24; 2nd dam Monafare by Monitor 1327.

Reserve Victor is a good-looking trotter, sound, clean and good gaited. Price, \$150.00.

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will lend your influence to this cause you will endear yourself to many saddle horse breeders. I, myself, am very much in favor of having the rules changed; not relative to stallions but to mares. There are a great many mares that are saddle bred that ought to be in the register. They are not in the register, in a great number of instances, through neglect of their owners, and now that the rules are so tightly drawn they cannot get in, but are justifiably entitled to be in. For the benefit of these mares, mares sired by registered horses out of questionable mares, they ought to be allowed to come in under some change in the rules.

If you would get an expression from your patrons as to how they would like to have the rules changed I would be very glad indeed to read their plans through your paper.

Yours very truly,
PAUL BROWN.

Editor's Note: We thank Col. Brown for the above article, and while there will probably be a difference of opinion in regard to the plans suggested in his closing paragraph, we will welcome anything that our readers may have to say about the matter.

L. E. CLEMENT'S WEEKLY LETTER.

Editor RURAL WORLD: George Ahrens, 2:20½ trotting and 2:18¼ pacing, by Heir at Law, 2:12½ trotting, 2:05½ pacing, has been sold by Jesse M. Cain of Springfield, Mo., to J. W. Sherer, at Blodgett, Scott Co., Mo. Scott County, that has had so much done for it by drainage, has furnished Bland S., 2:03½; Black Lock, 2:04½, and others very little behind them. George Ahrens is the sire of Major Odell (5), 2:07½, in his first season, on the track, and will add to the reputation of the county in which he has found a new home. I am glad the horse was not permitted to leave the state.

Mr. H. M. McGilvary, of Sorento, Bond County, Illinois, is offering three choice bred Electioneer Wilkes horses for sale, out of them by Infact, son of Electioneer and the other two by a son of Elliston that the people of Sedalia paid \$10,000 for some of his young stock carries the blood of Flying Cloud and Addison that spent the better part of his life at Belleville, Illinois. Given reasonable opportunity Addison was one of the best sons ever sired by Hill's Black Hawk. W. E. Price of Pocahontas, Bond County, had a black daughter of his thirty years ago, that could easily have trotted into the 2:30 list. Mr. V. Harris of Wichita, Kas., is using as a brood mare the daughter of The Searcher, 2:17½ pacing, sire of four trotters and eight pacers; dam by Ashland Wilkes, and as a driving mare a daughter of Victor Ene that I went to Sparta, Wis., to buy as a three-year-old, because at that time I had never seen a horse with as many great brood mares behind him. Mr. Harris, in this mare, has as great a brood mare as was ever owned in Kansas, but like her relative, Old Nell, that Mr. McDonald of St. Joseph, Mo., kept for his own driving, until in a mix up with a flock of sheep she was crippled and sent down to Altorf at Tongonoxie, Kas., and bred. Had Mr. Davis lived Old Nell, by Hiawatha, with her daughters would have surpassed Water Witch and her daughters. The dam of Mr. Harris' mare was a half-brother to Old Nell and out of Leonine, dam of Big Timber, 2:12½, and two others. This mare is called the road mare of Wichita, but she should have an opportunity as a brood mare.

I have stated that George Ahrens goes to Scott County. While this is out of the Saddle Horse section and possibly Mr. Cohen never heard of Mr. J. W. Scherer, or the president of

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the bank at Oran, in Scott County, Mr. Stubblefield, Jr., breeder of Bland S., 2:03½, and the owner of Blacklock, 2:04½, while such men live in Southeast Missouri, "the fine horse business" will not die. It is possible that Mr. Cohen does not recognize

that King Hill Stock Farm at St. Joseph and the Smollinger farm at Iron-ton are among the largest and most progressive trotting horse farms in the whole country. It is only a few years since Sonoma Girl was the talked-of mare of the trotting turf. She was bred in California, but her sire, Lynwood W., is at home at Harry Wood's place in Missouri. Lombro, one of the great sons of McKinney, did his last stud duties in Missouri. One of the best trotting stallions ever bred in California and sent east to race was R. Ambush, 2:09½, by Zolock, 2:05½, also a son of McKinney, found a home at Carthage in Jasper County, Mo., and his sire Zolock that added another 2:10 trotting son to the list in 1912, will make the season of 1913 in Missouri. He is except Grat 2:02½ (bred and kept all his life in Missouri) the fastest horse that ever did stud service in Missouri. The grand old state of Missouri is proud of her saddle horse achievements, proud of Artist Montrose, Charles Reade owned so long in the state; Rex McDonald, Black Knight and Astral King, but wipe out all she has yet done in that direction, and still the state is advancing along other lines of live stock breeding as any state in the Union. New York and the East for the advertisement, and to each a class of brood mares and teamsters, is sending their stallions to Kentucky for opportunities they cannot get at home. Peter the Great, Bingen and J. Malcomb Forbes are owned in New York. General Watts (3), 2:06¾, in Virginia. Many others prominent in Kentucky are owned outside of the state.

Royal Baron 2:09½, R. Ambush 2:09½, Capt. Aubrey 2:07½, Millerton 2:28, sire 8 trotters and 3 pacers, Constantine, sire of 43 trotters and 31 pacers. Echo Bell 2:21½, sire of 8 trotters; George Ahrens 2:18½, sire of 1 trotter, 1 pacer, are all owned and kept in the state. So is Linwood W., sire of Sonoma Girl, 2:04½, and Charlie Belden 2:08 and meritorious sires, in all, one hundred and fourteen counties that make up one of, if not the greatest breeding state in the Union.

Great as is the saddle and light harness horse interest in Kentucky, they would be surprised to find how much the Missouri hen and her products show them under, in a comparison of actual cash value.

LITTLE KINKS IN HARNESSING THE TEAM.

Editor RURAL WORLD: It is surprising how much time is wasted in harnessing and unHarnessing farm teams. I find that the best way to harness a team is to begin when I take the harness off by putting up the lines securely and yet not so tight that they will be hard to unfasten and take down and will not be kinked as if they had been braided for curls, and not hanging so low that a horse

when striking at flies with his hind feet will catch a foot in them and break them.

Then as the horse stands in his stall, take the harness off, and turning to a peg-hook or rack made of an old wagon tire and nailed to the wall behind each horse, hang it up as it hangs on the horse's neck with the front end to the wall. Then when putting the harness on the horse one can take it down on one hand or arm and turn around and put it on the horse without having to fumble and twist it around when it is hung up by the cruppers and turned and twisted a time or two. Then take off the collar and hang it up end down, not by the breast strap, but hang the body of the collar over a peg-spike or hook made the right size to hold it. Do not buckle the top end and it will not have to be unbuckled when putting it on. When this has all been done and each piece hung up in reverse order it is only a few moments work to take down the collar, slip it over the horse's neck, fasten it, and take down the harness, turn around and with a gentle throw put it on the horse's back; slip the tail through the crupper, pull the hames to their place and buckle the hame strap—not too tight—many a good pulling horse has been blinded by a snug-fitting collar that is just a little too snug.

I had a spirited mare and her eyes began to fail. John looked at her eyes and tried to slip his hand between the side of the thick part of her neck and the collar, but there was not room. Turning to me, he said: "Father, that collar is too tight; Uncle A.'s boys blinded some of their best horses by having the collars too tight." We loosened the hamestring until we could slip our fingers between the neck and side of the collar and our hand between the lower part of the collar and neck, and her eyes cleared in a few days.

Sheldon, Mo.

C. A. BIRD.

Lady Grattan, the good trotter by Joe Grattan, showed herself to be more than an ordinary trotter by forcing The Wanderer out in 2:08½ at Dallas on Oct. 15, and finishing lapped on him. This was Lady Grattan's first start on a mile track. She had been racing on the half-mile tracks all season, most of the time around 2:18, a few times around 2:45, and on one occasion (at Iola, Kan.) in 2:12½. As she is a good mannered mare, and a good doer, it is not unreasonable to expect her to trot in 2:06 another year, barring accidents. She is in the stable of "Dude" Anderson, and is given as by Joe Grattan, which must be a new sire of standard performers, and in all probability the 12-year-old sorrel, Joe Grattan, with a pacing trial of 2:07½, but no record, and nonstandard, that was formerly owned in Missouri, but now owned near Fort Scott, Kan. Sired by Grattan, 2:13, dam Susan Brown (dam of 2 in 2:10) by Don Carlos, thoroughbred.

Write a small ad and count the words at 1 cent each. Send in the money and the copy and see what will happen.

The Pig Pen

SIZE OF PIGS INFLUENCED BY NOURISHMENT.

As to the size of the pig at birth, there can be no doubt but that this is influenced almost entirely by the nourishment, tendency of the breed and age and tendency of the sow. If in the case the same sows gave larger sized pigs in the spring than fall, of course the matter of maturity of the sow, and her breeding is entirely eliminated and we need to look to nourishment for our trouble. If the sow was thin, and she was turned on alfalfa pasture with grain now and then—which means practically no grain, a sow would not have gained more than 50 to 60 pounds. This is not enough. Besides, alfalfa alone is too nitrogenous in nature to furnish nutrients for a breeding animal growing a foetus. If it had been for a dry sow—the pasture would have been sufficient, but when pregnant she should have been fed some grain as barley or corn or similar feed with the pasture. Satisfactory results would have been expected, because then a balanced feed would have been supplied.

It is generally supposed that a reasonably mature and strong animal is superior to an immature weak individual. We do not know that an old boar is more prolific than a young one. Data upon which to base a positive statement is not to be had, to our knowledge. We prefer a mature and tried boar.

For hogs, the feeding value of roots is based entirely on the digestible product contained in them. They would then rank as follows: artichoke, sugar beet, parsnip, carrot and mangel.

FEED FOR BROOD SOWS.

It must be remembered that the brood sows, whether young or old, is from the time she is mated until she farrows merely a pig factory, the product of which is bone, gristle, lean meat, hair and blood, an altogether nitrogenous or albuminous product, says William H. Underwood. Therefore the feed, which is the raw material out of which this product is manufactured, must be of the same general character.

I give my brood sows all the clover hay I can get them to eat. They will consume a great deal more than many farmers would think. Corn is also desirable; they need it in cold weather to sustain the animal heat. I generally give about as much shorts or oats as I do corn. They must have plenty of exercise and a good warm place to sleep, if the best results are desired at breeding time.

Any farmer knows just about the time his sow is to bring forth her young, and then is the time she needs the most careful attention. During the first 24 hours after farrowing, while the sow is yet in a feverish condition, she will show little if any inclination for feed. And while she is in this condition a good supply of water, slightly warmed, should be used liberally.

As the sow has not yet regained her appetite for heavy feed, she will relish a thin mash made of bran and skim milk. On the second day a slop of wheat shorts and bran will be found an excellent feed, but if these are not available, four pounds of corn mixed with one pound of oil meal will do well.

A mixture of two pounds of corn with one pound of shorts or bran, depending upon prices, should be fed in increasing amounts until the sow is taking a full feed. A day's ration would then be about 4% per cent of the live weight of the growing sow, in pounds, and 4 per cent of the weight of a mature sow in average condition.

Such a heavy ration should consist of six pounds of corn to one pound of oil meal or gluten meal. These foods are often cheaper than shorts or bran.

With a sufficient quantity of skim milk, four or five pounds to one of corn may be fed, in which case nothing else is needed. Mangels or other roots are an excellent feed for sows. Alfalfa at average prices is the most economical of all and can be fed as soon as the sow has fully recovered from the effects of farrowing. Not less than 60 per cent of her full ration should consist of corn, with the remaining 40 per cent hay, and should the hay be short and fine or in the form of chaff, half corn would keep her in a good, thrifty condition.

In feeding my young sows I give them about 3 per cent of their live weight in pounds of corn and let them have all the hay they wish. During the summer months less corn will be required on alfalfa or clover pasture than on hay, and half of a full feed of corn, or about 2 per cent of the sow's live weight, with all the pasture she wants, is a cheap and efficient ration. Care should be taken not to overpasture, both for the sake of the sow and the pasture. I find that it is a good idea to provide a good run and cut first one-half the field for hay, and the other half when the first has grown up, or to turn the sows from one field into another field which is not to be cut until the first is well started again. If the pasture consists of blue grass, it will be necessary to feed more corn than if it consisted of alfalfa.

When a sow is suckling a good-sized litter of pigs, no matter how liberally you feed her, she is almost certain to shrink in weight. But this, however, may be recovered after the pigs are weaned. Dry sows, from which the pigs have just been weaned, do well on alfalfa pasture without grain.

TO CURE CANKER IN PIGS.

Canker sore mouth always appears in young pigs under six weeks old and frequently with fatal results. The symptoms are as follows: Large water blisters appear about the lips and snout, rapidly succeeded by much heat and swelling of the parts, and later thick brown scabs appear, which open into deep cracks.

These scabs extend over the face, head and even to the body and limbs, the joints of the latter becoming swollen and inflamed.

Ulcers frequently form about the snout and jaws, eating the flesh from the bones. The pigs show dullness, a disinclination to move, often refuse to suckle, or do so in a very half-hearted manner.

To be effective the treatment should be prompt and thorough. Prepare a solution of permanganate of potash, which can be had at any drug store, using one ounce of the crystals dissolved in one gallon of water in a common pail.

The young pigs should be dipped head foremost into the solution and kept there for a brief time.

Repeat this two or three times, giving the pig time to catch its breath in the intermission. This treatment given every day for three or four days will usually effect a cure if the trouble is not of long standing.

In extreme cases where ulcers and heavy scabs have formed use two ounces of the permanganate to one gallon of water, and before dipping remove all the dead and loose tissues that have been eaten away. The sow's udder should be bathed freely with the solution each day.

Remove the sow and pigs to fresh quarters if possible, and see to it that other successive litters are not farrowed in the pen where the affected pigs were housed until it has been thoroughly disinfected. Benefit will

SAVE THE DEALERS' PROFIT

They may tell you that they can sell you a gasoline engine for as low prices as we can—but you know better. We are manufacturers and sell at wholesale direct to you. Get our factory, money-saving prices on the best engine built—the standard engine of America for 45 years. Every Witte Engine is run under a full load for six whole days in our factory, insuring absolute perfection in every detail.

THE WITTE ENGINE has been made firm 45 years at only one small profit. It has every improvement up-to-date; will run on every grade fuel and will burn your own oil or gasoline. Come to the Witte factory if you can, and see your engine made and tested—you will be surprised at our product, our 5-Year Guarantee, and our Money-Saving Offer. Made in 64 styles and sizes. In writing state size and style wanted. Address

Oakland Ave.,
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WITTE IRON WORKS CO. OBLONG, ILL.

also be derived from a laxative given the sow; a pint of raw linseed oil in her slop or in milk will be suitable."

CURING MEAT.

Nearly every season a few farmers have difficulty in curing meat for salt pork, bacon or hams. Packing houses in curing mildly, expect to have a percentage of loss. Although they have many facilities that farmers have not, they also have many factors to overcome that farmers do not ordinarily have to contend with.

Cooling a Great Essential.

There is no doubt but that most farmers that get into trouble with curing pork do so because the meat is taken into the house where it does not cool thoroughly or the killing is put off so long in the spring that warm weather sets in which has the warming instead of a cooling effect upon the meat. The early winter or winter months are without doubt the best months for curing meat because at this time cooling is facilitated by the natural cool weather. No carcass should be cut up for curing until it is thoroughly cool. Thick parts such as the ham and the shoulder should be tested with a thermometer to ascertain the temperature. By stabbing a narrow bladed knife into the meat at the thickest part, an opening can be made into which a dairy thermometer can be inserted to get the temperature. Both the knife and the thermometer should be soaked in a strong acid solution and washed in water that has been boiled and cooled, before using them on the meat. This should be done to avoid infecting the meat with bacteria that cause souring of hams and shoulders.

MOVEMENT FOR IMPROVED HIGHWAYS.

Many of the model highway laws in various states have been prepared under the advice of the road experts of the Department of Agriculture and all the data and statistics of the Office of Public Roads are at the disposal of the legislatures.

In the last bulletin of the Office of Public Roads it was stated that at

Berkshire Sows.

We are offering some of our best herd sows at half their cost. Bred to Ideal's Emperor. Also some fine gilts. Fifty fine Columbian Wyandotte hens at half price. Fancy White and Brown Leghorn cockerels at \$2 each. Also Wyandotte cockerels cheap. E. J. REED. OBLONG, ILL.

POLAND CHINAS. Tried bred Sow, Bred Gilts and Fall Pigs, no kin. Also Angus Cattle. J. P. Vissering, Box 9, Alton, Ill.

Mule Foot Hogs, Shetland Ponies, Milk Goats, White Leghorn Chickens. John Dunlap, Box 474, Williamsport, O.

the close of 1909 8.66 per cent of the roads in the United States were improved. This represents a gain in the total road mileage improved for the five-year period, 1904-1909, of 1.52 per cent, or, in other words, the percentage of improved roads has increased during this period from 7.14 to 8.66 per cent.

In the three years that have elapsed since then it is roughly estimated that the percentage of improved roads has gone well beyond 9 per cent and possibly close to 10 per cent. It is estimated that being selected and improved with a view to the proportionate traffic upon it—a high degree of efficiency in highway transportation would be reached. It is figured that millions of dollars would be saved annually in the transportation of crops, the wear and tear on horses and vehicles, and in the minimizing of the waste in truck farming. Where roads are bad, the farmers frequently find it impossible to get their products to the shipping points and thus perishable products are wasted, perceptibly increasing the cost of living.

In the five years preceding March, 1912, the Office of Public Roads of the Department of Agriculture has built 215 object-lesson roads; in all, about 300 miles of road 15 feet wide, and by expert advice aided in the formulation of more than 650 model county road systems, resulting in most instances in beneficial reforms. It has also assisted 26 states in effecting equitable state-aid plans. The Secretary looks forward to the coming year as promising better results than at any time in the history of the movement for improved highways.

"INVINCIBLE, UNSURPASSABLE, WITHOUT A PEER." Writes a regular subscriber, who has read it for many years, of the TWICE-A-WEEK issue of the

St. Louis Globe-Democrat

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GLOBE PRINTING CO.

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RURAL WORLD and GLOBE-DEMOCRAT EITHER ADDRESS, BOTH FOR \$1.00 NET

With the use of amount greater the last arisen accidentally due the value recently sheep is not shared.

Unfortunate sheep feed out to buyers have stations sources that shall not list of drivers stuffs for several used it by one man quite a almost theistic in have not trouble f.

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The Shepherd

SILAGE FOR SHEEP.

With the tremendous increase in the use of silos for utilizing a larger amount of the corn plant and the greater use of silage generally during the last two or three years, there has arisen a great deal of inquiry especially during the present winter as to the value of silage for sheep. Recently silage has come into general use on cattle farms. Now that its value as a cattle food, from the standpoint of cheapness, is becoming more and more apparent, the man who owns sheep is beginning to ask why he cannot share in a good thing, too.

Unfortunately, the use of silage for sheep feeding purposes has been tried out to but a limited extent. Few farmers have used it and the experiment stations have done little. From all sources of investigation it seems now that there is no reason why silage shall not find a permanent place in the list of desirable and economical foodstuffs for sheep. The writer has met several men this winter who have used it with satisfactory results, and one man especially, who had fed out quite a string of sheep with silage almost the sole feed, was very enthusiastic in his appreciation of it. We have not found any men who have had trouble from feeding it.

There has been a popular conception that silage is more or less dangerous to feed to sheep, especially breeding ewes. It was thought that it had a weakening effect on the lambs, also that there is likely to be some mortality among the ewes. Such ideas do not seem to be well founded. It is true that such results have been noted in flocks which had silage, but careful observations show that other factors may have had more to do with the results than the silage. At the station three years ago the ewe flock had considerable silage, in fact all they cared for. Also, the lambs were not as strong at birth as they ought to have been, and some loss was experienced at lambing time. But an excessive amount was allowed and ewes were entirely too closely confined without adequate exercise. Exercise is an absolute necessity for pregnant ewes if satisfactory results are to be had at lambing time. Lack of an experienced shepherd to handle these ewes at lambing time doubtless contributed to the loss. Since that year we have had no bad results.

Back in the fall of 1907 the Indiana Station began to experiment with silage for feeding pregnant ewes. One lot of ewes was fed silage along with clover hay and grain while another lot was fed more hay, slightly more grain, but no silage. These two lots of ewes were as nearly alike as could be had. The next year practically the same experiment was repeated, and again in 1909. During the first year a limited amount of silage was fed. The second year, four pounds per head, per day, was allowed and as no bad results accompanied this liberal feeding, the last year the ewes were given all they would clean up, which was practically 4.6 pounds. With all they wished of the silage, no deleterious results were observed either in the ewes or in the lambs.

As to results from these three years' experiments, the authors of the bulletin concerning this experiment say that the general thrift and appetite of the silage ewes was superior to that of the lots fed hay and grain alone. The ewes, having a quantity of silage, made each year a larger gain over winter than did those on dry feed. The latter averaged for the three years a gain of six pounds while the silage ewes gained 13.75 pounds or more than twice as much. Yet the writers state definitely that this gain was not mere fat like corn feeding would produce, but that the ewes were in good condition

to produce strong, vigorous lambs. It was a noticeable fact, that right straight through the whole three years the lambs from the ewes having the succulent feed, i. e., silage, averaged nearly 10 per cent larger at birth. As to the cost of feed, the ration including silage, proved the more economical, while more satisfactory results were obtained. The lambs from these two lots of ewes were all fed out for an early market and those from each lot did equally well, gaining nearly a half pound per day until they were sold.

The general results of this test running for three years show definitely that the use of silage for ewes, even in large amounts, will not interfere with the health and thrift of the pregnant ewe nor of her prospective lamb. Also, the succulence which the silage affords seemed to promote the thrift and general health of the ewe, and because of the added health and vigor, the foeti were better nourished, with the consequent result that larger lambs were produced. Furthermore the producing of all these satisfactory results did not affect the lambs unfavorably, and the silage ration was more economical.

Accurate data regarding the value of silage in a ration for fattening sheep and lambs is scarce, but what there is indicates that it is useful. As far back as the early nineties the Michigan Experiment Station fed some lambs on silage and other foodstuffs. The gist of their findings is to the effect that a mixture of fodders composed largely of a good quality of silage proved a cheap and successful ration for fattening lambs.

The Iowa station at Ames made some comparative tests of dry hays, roots, and silage as roughness in 1906 and 1907. In lots fed the first winter, the silage cheapened the ration considerably. During the second winter the various lots were fed for a long period, 168 days, and the silage lot refused to eat much silage. They ate almost as much grain and hay as the other lots did and the gain on these silage lambs was more expensive than was that with some of the other food combinations. But the average of the two years as a means of cheapening the ration. The lambs from all lots finished into market toppers, but the dressed carcasses showed the silage lambs a little superior on the hook. Taking these few experiments then into consideration, and also the general results which various feeders have obtained in practical work, it seems that silage has an important place among desirable and economical feeds for fattening sheep.

It is my opinion that silage can be fed to sheep with satisfactory results. The use of moldy or frozen silage may cause trouble, but good, clean, bright silage can be used with excellent results either as a succulent food for breeding ewes in winter or as a cheap but satisfactory and efficient roughage for fattening lambs and sheep. This opinion is based partially on observations of flocks which have been fed, and partially on the experiments quoted above. The results to date point toward silage as a cheap and valuable feed for sheep.—Ellis Rail.

IMPROVED METHODS OF MARKETING.

Following a disastrous marketing season and year's campaign to improve methods of marketing, instituted by Colonel Frank P. Hollard through his publications, the Southwestern fruit and truck growers have formed a cooperative selling exchange that will enter the field at once.

This exchange will undertake to handle between three and four thousand cars of fruit and truck during the present year and the organization itself controls fully 3000 cars.

It has established headquarters at Texarkana and affiliates with those associations that are willing to meet the

most stringent requirements as to quality of fruit and truck sold and the nature of the package.

The officers of the Exchange are: W. A. Nabors, president, Winnsboro, Texas; Bert Johnson, first vice president, Highland Arkansas; S. J. Verhagen second vice-president, Scottsville, Texas; Gerald Fitzgerald, third vice-president, Morrill, Texas; J. W. Ogburn, treasurer, Ogburn, Texas; C. W. Holman temporary secretary, Dallas.

SOIL SURVEY OF PIKE CO., MO.

The field work of the Soil Survey of Pike County, Missouri, made by experts of the Bureau of Soils, U. S. Department of Agriculture, in cooperation with the University of Missouri Agricultural Experiment Station, has been completed and the report will be issued during the latter part of the coming summer. The county contains about 620 square miles or 396,800 acres.

The survey was made by the Bureau of Soils in order that the agricultural value of the soils of the country might be determined and show to what crops each type is best adapted, in order that the Department may recommend what agricultural practices should be followed to obtain the best possible yields, and at the same

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time, maintain or increase the present fertility of the soil.

A soil and topographic map will accompany the report, showing in colors, the location and extent of the various types of soil encountered during the survey, as well as the location of all farm houses, churches, schools, public roads, streams and railroads in the county.

Get in touch with your neighbor who has something you want, by advertising at 1 cent a word in our want columns.

PATTERNS FOR RURAL WORLD READERS.

9480. Boy's Blouse Suit.

Cut in 4 sizes: 3, 4, 5 and 6 years. It requires 3 3-8 yards of 44-inch material for the 6-year size.

9470. Lady's Three-Piece Skirt.

Cut in 5 sizes: 22, 24, 26, 28 and 30 inches waist measure. It requires 2 3-4 yards of 44-inch material for a 24-inch size.

9474. Lady's Shirt Waist, with Vest.

Cut in 5 sizes: 34, 36, 38, 40 and 42 inches bust measure. It requires 2 1-4 yards of 36-inch material for a 36-inch size.

9478. Lady's Coat Model.

Cut in 5 sizes: 34, 36, 38, 40 and 42 inches bust measure. It requires 3 1-4 yards of 44-inch material for a 36-inch size.

9485. Girl's Dress.

Cut in 4 sizes: 8, 10, 12 and 14 years. It requires 4 yards of 36-inch material for an 8-year size.

9466. Lady's Apron.

Cut in 3 sizes: Small, medium and large. It requires 3 7-8 yards of 36-inch material for the medium size.

9482. Dress for Misses and Small Women.

Cut in 5 sizes: 14, 15, 16, 17 and 18 years. It requires 4 1/2 yards of 44-inch material for a 15-year size.

These patterns will be sent to RURAL WORLD subscribers for 10 cents each (silver or stamps).

If you want more than one pattern, send 10 cents for each additional pattern desired.

Fill out this coupon and send to COLMAN'S RURAL WORLD, 831 Holland Building, St. Louis, Mo.:

Pattern No. Size. Years

Bust. in. Waist. in.

Name.

Address.

RURAL WORLD readers should note that in ordering patterns for waist, give bust measure only; for skirts, give waist measure only. For children give age only, while for patterns of aprons say large, small or medium.



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Published every Thursday in the HOLLAND BUILDING, 211 North Seventh street, next door to the St. Louis Republic Building, at One Dollar per year. Advertisers will find the RURAL WORLD the best advertising medium of its class in the United States. Address all letters to COLMAN'S RURAL WORLD, Holland Bldg., St. Louis, Mo.

The RURAL WORLD is published on the cash in advance system and the paper is stopped when the time paid for has expired. If subscribers receive a copy with this notice marked, it is to notify them their time has expired and that we would be very glad to have prompt renewal. While our terms are One Dollar per annum—a low price considering the high quality of paper we use—yet so anxious are we to extend the benefits that we believe the RURAL WORLD confers on all its readers that we will for a limited time take subscriptions, both new and renewals, for 50 CENTS A YEAR. "Once a subscriber to the RURAL WORLD, always a subscriber." Farmers can't get along without it. Please remit P. O. money orders, or checks on St. Louis banks, as our banks all charge five cents for cashing local bank checks, however small. We appreciate the kind efforts of our patrons in all parts of the Union in speaking good words in behalf of the RURAL WORLD, and it is to these efforts we attribute our constantly increasing circulation.

The co-operation of reputable and responsible concerns, through our advertising columns—firms whose products and methods are creditable, and upon whose representations our readers may rely—is respectfully solicited, that our advertising pages may be really representative of American Manufacturers and their goods.

Contributed articles, communications, etc., on pertinent subjects, are invited. The Editor assumes no responsibility therefor, however, and their publication in nowise implies editorial endorsement beyond the Editor's belief that frank and courteous discussion of all questions within the province of this journal is to the best interests of our readers.

Entered in the post office at St. Louis, Mo., as second-class matter.

Use the best seed you can buy. It means better crops at no increased expense. Buy seeds early.

The post office department experts say that six million packages were handled during the first seven days' operation of the parcels post.

If the tariff question was settled over night people would be relieved and matters adjusted in a few days. Agitation only makes people apprehensive.

President-elect Wilson's decision to do away with the inaugural ball and incidentally save the country a large sum of money speaks well for the new President and the return of unostentatious democracy.

It is to be hoped that the very efficient work of the State Poultry Board will not be hampered by any adverse legislation or criticism. The Missouri State Poultry Board has been an inspiration to the poultry industry of our great state and anyone with the

best interest of the state at heart cannot fail to recognize why Missouri is in the forefront as a poultry state.

The indirect election of United States senators is proceeding with considerable expedition; there are some states, however, in which nothing would hurry matters until the politicians had gotten all the satisfaction possible out of deadlocks.

The idea of a summer roof garden for a public library is directly in line with the general movement toward the application of all the good things that are going to the needs of ordinary people. Why should not readers of good books be as comfortably provided for as others?

Protection against floods in the great central valley of the United States will surely come when the thirty odd states concerned shall agree upon a plan of action among themselves. That will afford the federal government an opportunity of seeing how earnest they are.

The Terrible Turk is about to renew the war. He would be much better off if he had accepted the terms offered by the allies. Any terms should be good enough for the Turk, in the light of the past century, which has been one of the most brutal in the history of the world.

For the first time in more than twenty years, steamboat traffic on the Mississippi River out of St. Louis will be resumed in mid-winter instead of in the spring. The steamer Georgia Lee of the Lee Line will reopen the river transportation business between St. Louis and Southern points Saturday, when she will depart for Memphis.

Direct taxes upon the incomes of citizens of the United States, whether derived from idle capital or from the conduct of business, were made possible by the ratification of the sixteenth amendment to the Federal Constitution, Delaware, Wyoming and New Mexico indorsing the income tax amendment through their respective legislatures, completed a list of thirty-eight states which have approved it, two more than the three-fourths necessary for its final adoption.

Representatives Hamlin and Rubey of Missouri left Washington with the entire membership of the House Committee of Agriculture, Secretary of Agriculture Wilson and numerous experts of his department for Columbia, S. C., to be guests of the Fifth National Corn Exposition, which opened January 27 and will run until February 8. Rubey is a member of the Agricultural Committee. The exposition is said to be the most complete ever held in the United States. The Department of Agriculture has the most comprehensive exhibit with Columbia that the government ever made at such an exposition. An expert of nearly every bureau in the department is now at Columbia.

The State Poultry Board recently was formally charged before a senatorial investigating committee of "placing too much weight upon the color of the eye and the angle of the talons of the chickens, rather than to the number of eggs they produce." H. E. Branch of Bolivar was the prosecuting witness. The board was defended by its secretary, T. E. Quisenberry, of Columbia. Some of the senators, with chuckles, confessed they were ignorant of classes of chickens, and one said he could not testify as to the number of eggs a hen should produce a day. The committee adjourned for a week until the senators not well up on chickens can observe poultry and studying poultry journals.

MCKINLEY ST. LOUIS HOST TO 17 CORN GROWERS.

Seventeen young corn growers from the Nineteenth Congressional District of Illinois Saturday arrived in St. Louis as guests of Congressman William B. McKinley. They were the winners of second and third prizes in a corn-growing contest conducted by him in each of the eight counties in his district. The boys who grew the best corn were given a trip to Washington, D. C.

The lads, ranging from 9 to 18 years in age, arrived in St. Louis in a special car over the Illinois Traction System. After dinner at the Missouri Athletic Club they attended the Century Theater. They took an automobile ride through St. Louis and East St. Louis, Shaw's Garden, Forest Park and Jefferson Barracks. They departed for Champaign, Ill., in the afternoon. On their way to St. Louis they visited points of interest in Springfield.

The party included three sets of brothers and was headed by C. A. Willoughby of Peoria. Those comprising the party are: George and John Furr, Shelbyville; Carl Dridgman, Moweaqua; Orville Sampley, Bethany; Ralph Boyd, Gays; Earl Dixon, Farmer City; Loren Hoffman, Waynesville; Charles Faith, Warrensburg; Milton Batchelder, Harristown; Bobby Walker, Mansfield; Charles Alexander, White Heath; Leo Block, Sidney; Hobart and Floyd Deffenbaugh, Mahomet; Clifton and Roy James, Charleston, and Myron Cuskaden, Arcola.

Clifton James, 9 years old, is the youngest. The RURAL WORLD man was glad to be able to meet this crowd of manly-looking young fellows, and feels sure that many of them will win first prizes next year.

GROWING RED CLOVER.

Since indications point to a very large amount of clover being sown, it would seem opportune to consider some matters very carefully.

We should know that the seed is of the purest, and that it will grow. These things can be determined by submitting samples to the seed testing laboratory at Columbia, and this work is all done at no cost to you.

Some samples that have been left at this office have had from 5 per cent to 20 per cent of other seeds and trash, but this foreign seed such as foxtail, pepper grass, buckhorn, bracted plantain, timothy, etc., come too high when you are paying clover seed prices for them, then when you sow them you will not get them to make clover. If you sow bad clover seed it is your fault.

The time for seeding can not be foretold so much depends upon weather conditions that follow seeding. Some have good results by sowing on a late snow, and often the melting of the snow, and the action of the top soil will cover the seed very well, but if the snow happens to melt very fast, many seed will likely wash away, especially on ground somewhat rolling.

One common trouble in seeding clover in wheat is that the clover does not get covered well enough, then when the wheat is harvested and the young clover exposed to the hot sun, the clover is killed.

The harrowing will not only help to cover the clover seed but will be helpful to the wheat as well. It is doubtful about harrowing when there was timothy sown in the wheat in the fall, as the harrow might do much mischief in tearing out the young timothy.

A very successful method is to sow clover with oats, sowing not more than two-thirds the usual amount of oats, and being sure to cut the oats for hay, cutting the oats from the milk to the dough stage. The reason for cutting early is that oats take so much water

from the soil in their ripening that the ground is likely to be so dry that the clover will die. This will hold true except when the season at cutting time may be rather wet, in such an event, it is then safe to allow the oats to ripen.

If a full seeding of oats be used, the oats would shade the young clover too much, and it would be so tender when the oats were cut that the heat would kill it.

The amounts to sow will be reckoned on high quality seed. On good soil, if sown alone, 8 pounds per acre is most common. If sown in timothy half as much may be used. The amounts should also vary according to the way in which we can get the seed covered.

For wet soils Alsike is best. For good upland red is preferable, and for poor upland mammoth is perhaps best. A hay mixture that is good is 15 pounds timothy, 6 pounds red clover, 4 pounds Alsike. In buying Alsike care should be taken to see that Canada thistle, Canada blue grass and wire grass seed are not present.

In sowing 8 pounds of red clover seed per acre about 18,000 seed are sown per square rod, or there are about 375,000 seed per pound. In Alsike clover there are about 700,000 seed per pound.—S. M. Jordan.

VALUES OF FARM ANIMALS.

The Crop Reporting Board of the Bureau of Statistics of the United States Department of Agriculture makes the following estimates, from reports of correspondents and agents of the Bureau, of the numbers and values of farm animals on farms and ranges in the United States on January 1, 1913:

Compared with January 1, 1912, the following changes are indicated:

Horses have increased 58,000; mules increased 24,000; milch cows decreased 202,000; other cattle decreased 1,230,000; sheep decreased 88,000; swine decreased 4,232,000.

In average value per head, horses increased \$4.83; mules increased \$3.80; milch cows increased \$5.63; other cattle increased \$5.16; sheep increased \$0.48; swine increased \$1.86.

In total value horses increased \$105,528,000; mules increased \$19,588,000; milch cows increased \$107,369,000; other cattle increased \$159,581,000; sheep increased \$21,609,000; and swine increased \$79,781,000.

The total value of all animals enumerated above on January 1, 1913, was \$5,501,783,000, as compared with \$5,008,327,000 on January 1, 1912, an increase of \$493,456,000, or 9.9 per cent.

Resolutions endorsing Mr. H. J. Waters, president of Kansas Agricultural College as Secretary of Agriculture under the incoming administration, and urging the state legislature to support the College of Agriculture and especially the Animal Husbandry Department, were unanimously adopted by the recent annual convention of the Missouri Sheep Breeders' Association at Columbia, Mo. E. B. Wilson of Stanberry was elected president. The association voted to co-operate with the Missouri Cattle, Swine and Sheep Feeders' Association in all matters that seemed advisable. A law against dogs, which cause endless trouble to many sheep raisers, was ably discussed by Mr. M. V. Carroll, of Pettis Co., and former secretary of the association. He told of the trouble in getting the former dog laws through the legislature and how it had then been killed in the lower courts, money being lacking to carry it to the Supreme Court.

Read the advertisements in this number. You will find them interesting and perhaps find the very thing you are looking for it.

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THE FERTILITY PROBLEM.

By C. D. Lyon.

My special line in Farmers' Institute Lecture Work is Soil Fertility, and since 1884 I have discussed this subject before many thousands of farmers in a dozen states, always laying as much stress as I could on the gaining and applying of as much farm made manure as possible.

In the South I always met the objection that the amount of farm stock did not produce an adequate supply of manure, a fact which I knew very well, but we were always able to agree on a platform which provided for the combined use of farm manure, cow-peas and commercial fertilizer.

In some parts of the middle west, especially those where wheat was grown to a considerable extent, I met the same objection, and it was often urged that while stable and farmyard manures were desirable, it was impossible to get enough to cover a twenty or forty-acre wheat field.

Again, in other sections a deficiency in the mineral elements of soil fertility, or plant food, phosphoric acid and potash, was not supplied by the stable manures, so it was necessary to resort to the use of commercial fertilizers in order to properly balance the plant food in the soil.

In 1909 I was asked to go to Nebraska for the season's Institute work, and we got along so well together that I was recalled for the season 1910-1911.

For the first two weeks my work was along the eastern side of the state, and while I preached farm manures as earnestly as I would in Ohio and Indiana, I met no opposition, in fact, it seemed that all of my hearers were as great advocates of such manure as I was, but when I was sent out past the center of the state, into the region of somewhat less rainfall than is desirable, my manuring scheme met with general disapproval.

At several institutes I found good farmers who strongly opposed the use of yard or stable manures upon anything but pasture lands, and never on lands intended for plow crops, giving the reason that anything like a liberal application caused the crops to burn out.

This was a proposition I had never met before, but I found that in their locality it was strictly true, and while all farmers were sorry that they could not use their manures upon their corn crop, the use of commercial fertilizers had not been thought of excepting by a few men who had recently moved in from eastern states.

Some farmers even went so far as to burn over any lands intended for plow crop before breaking them, and it was often told that where a strip was not burned it did not produce as well as the rest of the field.

While a great many used all of their farm made manures on the meadows and pastures, and the manure spreader was to be found on many farms, the want of plant food in a readily available form was plainly evident, and to my mind the use of mineral plant food over great parts of Kansas, Nebraska, and the Dakotas, would be more profitable than in many states where it is in general use now.

There is absolutely nothing in either phosphoric acid or potash to burn crops, or cause them to fire, in seasons of deficient rainfall—in fact those mineral manures have the opposite tendency, that of attracting and holding the soil moisture, so that it may be readily taken up by the plant roots.

This is a problem worthy of study by the soil physicists, and the plain farmer of all those semi-arid regions, and if investigation should prove that the use of a dollars worth of concentrated plant food will produce ten or even two dollars' worth of crops, as it often does in other states, it might go a long way toward assisting nature to

overcome the deficiency in rainfall of such regions.

The necessity for the use of nitrogen in the purchased form is some years off in all regions where alfalfa can be grown, and the benefits of phosphoric acid in many places is yet problematical, yet it may be—and I feel certain that it will be found—that potash is the element lacking, and that its use will result in much greater crops of corn and small grains.

To conclude, if I were a grower of flax, and were troubled with the flax wilt disease, I would make an exhaustive series of experiments with kainit, as I know it has proven invaluable to the southern cotton grower in the control of cotton wilt, a disease very similar to that which attacks flax.

PROFESSOR VAN NORMAN LEAVES PENNSYLVANIA.

After seven years of conscientious and enthusiastic work in the interest of Pennsylvania dairying, Professor Van Norman of State College leaves his position as Professor of Dairy Husbandry to accept the position as Dean of the Davis School and Vice Director of the Experiment Station, University of California.

While in Pennsylvania he has not only become known throughout the State but throughout the whole of the United States as an authority on dairying. When he came to Pennsylvania there were less than ten students taking dairy subjects while at the present time there are over 500 students enrolled in the different classes.

A commercial creamery has been built up from 40 patrons to 240 and from a losing proposition to a commercial, systematic, self-sustaining concern, with annual sales of over \$70,000.

SOIL SURVEY OF STODDARD CO., MISSOURI.

The field work of the Soil Survey of Stoddard County, Missouri, made by experts of the Bureau of Soils, U. S. Department of Agriculture, in cooperation with the University of Missouri Agricultural Experiment Station, has been completed and the report will be issued during the latter part of the coming summer.

The survey was made by the Bureau of Soils in order that the agricultural value of the soils of the county might be determined and show to what crops each type is best adapted, in order that the Department may recommend what agricultural methods should be practiced to obtain the best possible yields, and, at the same time, maintain or increase the present fertility of the soil.

Accompanying the report will be a soil and topographic map showing in colors the location and extent of the various types of soil encountered during the survey, as well as the location of all farm houses, churches, schools, public roads, streams and railroads in the County.

J. T. Nunnelly, of Readsville, sends the Fulton Gazette the following interesting communication: "You may think we 'woods' fellows do not know about parcels post, and to show you that we do, I give you an instance: One of our country men found it so slick a few days ago that he could not get his horses to town to have their shoes sharpened, so he pulled the shoes of his four work horses and handed them to our rural mail carrier as he passed and instructed him to have the village blacksmith sharpen them and return by parcels post next day. The eight shoes weighed nearly nine pounds and the postage was 13 cents each way. The farmer stayed at home and put in his time cutting wood, and nailed the shoes on himself the next day. Can you beat it?"

ITEMS OF INTEREST.

It is also interesting to note that Casper Henn of Prudence, and Laura Peck of Danville were married last week.—Kansas City Times.

To improve his poultry stock, Reformer L. A. Hoke recently bought in Iowa a fine Buff Orpington cockerel, weighing 10½ pounds. During January his flock of fifty hens produced thirty-five dozen eggs.—Laclede County Republican.

When the associate editor was in St. Louis last week he stopped over a night each at the hotels, the Edison and the Benton, advertised in the RURAL WORLD. He wants to say that he finds them the cleanest and best-managed places of the kind he has ever seen at the prices charged.

Calling the attention of readers to the advertisement of tobacco dust in this issue, we feel sure that they will do well to give it a trial, not only as an insecticide but as a fertilizer. A pound of tobacco dust per square yard upon a lawn will act more quickly than any other manure that can be applied.

Perry Macy says his new silo is the handiest thing he ever had on his farm and is of the opinion that every farmer would have one if they knew how much satisfaction can be derived from it. We know of a number of Daviess County farmers who are expecting to erect silos next summer.—Gallatin North Missourian.

We report the following stock sales this week: Hale Young to Hensley & White, 2 mules at \$275.00; two mules at \$275.00, to Wm. Drunert of Warrenton, 2 mules at \$280.00, and 1 horse at \$40.00; Lafayette Mason to Hensley & White, 10 cotton mules at \$145.00 per head and 1 mule to Harry Cope at \$210.00.—Jonesburg Journal.

Let ABSORBINE make money for you. It will reduce swellings, and soft bunches, stop lameness and inflammation, allay pain, heals cuts, bruises, lacerations, boot chafes, saddle galls, etc., without blistering or removing the hair and horse can be used. \$2.00 per bottle at all druggists or delivered. W. F. Young, P. D. F., 58 Temple St., Springfield, Mass.

If you don't think it pays to raise good stock just ask Albert Bergman, who is sure it does. He sold this week a bunch of 16 fine porkers that weighed 4700 pounds for \$7.15 per hundred, which was but 45c below St. Louis market. The hogs were sold to local butchers. Albert thinks there were no finer hogs fattened in the county.—Perry County Republican.

"In Missouri," Augustus Thomas' new play, was played at Turlock, Cal., recently and received a severe drubbing from J. M. McClure, editor of the Turlock Daily Tribune, an old Pike County man, who resented the liberties taken in the play with Bowling Green, and the imputation that the residents of this cultured little town backwoodsmen.—Vandalia Leader.

Incidentally with all the talk about Missouri mules and the fact that one can hardly pick up a rural Missouri paper without noting that some farmer has just shipped several carloads of fat hogs to market, please note that one day last week the little village of Powersville, near Unionville, loaded and shipped 2,000 sheep to one of the many places where sheep are made into mutton.—Russellville Rustler.

By the transfer of the dairy farm, one mile east of Osceola, long owned by Judge Wm. M. Love, to W. S. Rance and Ed Withaner of Olathe, Kan., one of the most important real estate deals which has been effected in St. Clair County for some time was made. The farm consists of 313 acres and was purchased as unimproved land by Judge Love in 1883. The purchase price was \$6.50 an acre, making the first cost \$2034.50, while the considera-

tion at selling time, nearly thirty years later, was \$21,000, or most \$70 per acre.—Osceola Republican.

Polk County should have a farm expert. Pettis County hired Sam Jordan a year ago and now they would mob any county that would attempt to take him away from them. He understands soils and farm needs of every character. He can go out to any farm, examine the soil, tell just what clement it lacks and what fertilizers or crops will replace the missing element. He can tell at a glance almost what crop can be grown best on the soil of any field and the best possible rotation. He is an expert in dairying, poultry and stock raising and fruit-growing from a practical viewpoint.—Bolivar Herald.

At the risk of being classed as a hair-brained Socialist we suggest that Missouri go into the fire and life insurance business and save to herself and her citizens the millions of dollars we pay above fair and reasonable rates to foreign corporations every year. Monroe County farmers organized a company in self-defense 20 years ago. It has never defrauded in a single payment. It has never collected from its members a dollar above the actual cost of their insurance, and this protection has averaged them about 15 cents on the hundred dollars per year. Today the company has risks upon Monroe County farm property to the amount of \$4,000,000, and old-line companies, with their unreasonable rates, have to look elsewhere for support.—Monroe County Appeal.

One of the largest land deals ever negotiated in this section between Illinois and Missouri land owners was closed last week, when Jack Harrison, of Auxvasse, sold the Thomas Harrison farm, east of Auxvasse, containing 982 acres, to Bell Brothers, of Rochester, Ill., for \$100 an acre almost \$100,000. Mr. Harrison takes in the Abe McPike farm of 415 acres near New London, Ralls County, at \$75 per acre. Bell Bros. pay the remainder. The farm Mr. Harrison has just sold is one of the largest in Callaway County and is the one on which he was reared.—Mexico Intelligencer.

Was It Big Farming? And Is It Profitable?

Says the Windsor Review: "Dave Johnston is spending a good part of his time these days out at his farm near Brandon. He is feeding two car loads of cattle and 96 hogs. The hogs are fine ones, being nearly ready for market. Dave says he raised over 5000 bushels of corn this year from his 175 acres he had in corn. More corn than he ever raised on the place before in his life."

That looks like big farming, but is it profitable? Mr. Johnston got 30 bushels to the acre. The price to sell or buy was 40c, or \$12 an acre. C. D. Lyon, associate editor of COLMAN'S RURAL WORLD, and a skilled farmer says that each bushel of corn takes 17 cents' worth of nitrogen from the soil, and it would cost that at least to replace it, not to speak of other fertilizing elements. That would mean \$5.10 to the acre, leaving \$6.90 per acre for other expenses. If the value of the land is based on its fertility to raise grain for a certain number of years until it declines in fertility there may be a profit in a good general corn year like 1912. But if farmers are to continue to submit to the law of supply and demand, unlike all other forms of work requiring a large investment, the figures given are only a signboard to "over the hills to the poorhouse," for anyone that is obliged to have considerable indebtedness. How much corn did Dave get last year? The figures given of the field on good land a good year, is certainly an argument in favor of the farmers' organization that now has a million members, in its intention to get paying prices.—Benton County Enterprise.

Home Circle

HELP MOTHER.

Daughter, help your tired mother,
Share with her the household care;
Help her with the heavy burden,
Don't leave it all for her to bear.

Can't you lighter make her footsteps?
The rose has faded from her cheek;
She can't toil for you much longer,
For she is growing old and weak.

Lift the burden from her shoulders,
Make the dim old eyes grow bright;
For ere long they'll close forever
Then is gone home's brightest light.

When in gloomy days you're sighing
For your mother gone to rest,
Then you'll know of all who loved you,
That your mother loved you best.

Naught can change the love of mother,
Every blessing is as free
As when she watched you in your
pleasure,

Romp and dance in childish glee.

Then why let her work and worry
O'er the task that you should do?
Help her cheerfully, and remember
What your mother did for you.

Daughter, that dark day is coming
And it is not long at best,
When your poor old tired mother
Will lie down in death to rest.

Then how dark will seem her shadows
When the days grow cold and late,
And you wait in tearful silence
For her coming at the gate.

Help her, for the day is coming
And is coming swiftly, too.
When she must lay down her burden,
When she cannot toil for you.

She has watched you through your
childhood,
Kissed your cheek and smoothed
your brow;

She has tended you and loved you;
Can't you help your mother now?

—Mary F. Beetz, Spokane, Wash.

Written for THE RURAL WORLD. HEART TO HEART TALK.

By Virginia Jackson Safford.

Some time ago I had my little girl with me in a crowd. An elderly couple, strangers to me, came up to her and the woman stooped and tenderly kissed the small, laughing face. There were tears in the woman's eyes. "Oh," she said to the man with her, her husband, I supposed, "she is so much like little —," and I did not catch the name. Then they walked away. My little girl reminded that woman of some child about whom her own heart strings were twined—a grandchild, perhaps, living far away, or maybe sleeping in some tiny mound.

I had been to my girlhood home with my baby girl for a visit. After I came away my mother, in writing of how dreadfully she missed the baby, said: "I found a little worn shoe of hers the other day and cried over it. There is something about a worn baby shoe that somehow goes to a mother's heart as nothing else will." Oh, my readers, I wonder if some of you have treasured a tiny, battered shoe with a small round hole, where years ago a baby toe "came out to grass," or soiled, dilapidated toys that are wondering still.

"What has become of Little Boy Blue since he kissed them and put

NEW BEAUTY IN ONE WEEK

Ladies everywhere are learning the great value of **Beutiola**, the remedy that removes brown spots and Freckles, modifies Wrinkles and aids in permanently curling Pimples, Black Heads and all Facial Blemishes. Price 50c per box.

Agents Wanted

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them there." Whether your little Boy Blue has gone to that country from which no traveler ever returns, or is now a man fighting a man's battles in the world, in your heart he is your baby still. Yet, you are in a sense, mother to all men. Did you ever notice when traveling with a child of your own that it seemed to you that you could read in the faces of all persons into whose eyes you chanced to look, whether or not they had children? Somehow a measure of tenderness for all children seems to flash unconsciously forth from the parent heart. Oh, what a yearning wonderful thing is that which God has created and we call the human heart. Of what heights and depths and breadths of affection is it capable. Yet, there come to us every one, times when our affection, however strong, can avail our loved ones nothing. Some deep, deep trouble comes upon them which we are powerless to alleviate or a summons comes and they go from our grasp and our sight on this earth forever. Woe to us at such a time if we have not our faith firmly fixed in Him who said: "I am the way, the truth and the life."

How infinitely much at a time like this does the verse John 3:16 mean to us: "For God so loved the world that He gave His only begotten Son, that whosoever believeth in Him shall not perish, but have everlasting life." Oh, that verse: What comfort is there for sad, weary hearts. There is a story of a little girl who lived in a home where there was no Bible. She had heard of God only as a being who punished sin, a being of wrath instead of one tender and loving as well as just. The little girl's family was extremely poor and she had to endure many sufferings. As she grew older she began to wonder in her childish way why there was so much suffering for her and her loved ones, and why God delighted to punish people who tried to do the best that they could? Then one day she found a piece of a leaf that had been torn from a Bible. On this scrap of paper was a part of the verse John 3:16: "God so loved the world that He gave His only begotten Son." Here the leaf was torn and she could read no more. But what a revelation were those few words to the girl: "God so loved the world." If He loved the world that included her and her sisters and brothers and her mother, who often, after a hard day's work, had to go almost supperless to bed that her little ones might not be hungry. And if God loved them, surely things would somehow come right in the end. How she treasured that scrap of paper which she hid away among the few little possessions that she most loved. Often, as the years went by, when things seemed darkest, she would get it out and reread it. And always the words "God so loved the world" brought fresh comfort to the weary young heart. At last, so the story goes, when she was almost grown, she heard the blessed story of salvation through the Christ and she and her family speedily took Him as their Saviour. I told this little story some time ago to an audience of women. Several weeks afterward a dear old lady who lives all alone and has known many, many sorrows, said to me: "I have thought of that little story and you don't know the comfort it has given me." Oh, the glad thankfulness that welled up in my heart then. For is there anything that can bring us quite the joy that is brought by knowing it has been given us to carry even a little bit of comfort to a burdened fellow creature? That story had comforted me because it brought to my notice as it had never been before that verse of Scripture. And often since, when things have seemed hard to bear, I have thought "God so loved the world that He gave His only son, and that son is today our sympathizing friend as well as our Savior."

Written for THE RURAL WORLD. SUCCESS IN A YEAR.

By Essillyn Dale Nichols.

Not so many years ago the above assertion would have met with ridicule, but thanks to an advanced enlightenment, we of today are ready to consider if not accept the apparently impossible, because so many apparently impossible things have become the possible.

We do not, at the present time, believe in fate, destiny and such like mythical superstitions; we have relegated them along with other clogs to progress, upon the rubbish heap of the past, and we are eager to investigate an experiment with, new theories afloat old realities, because we now understand that there are inexorable though simple laws governing all of God's creation, and if we would attain the worth while things of life we must learn how to apply these laws according to our needs.

SUCCESS (I spell it in capitals because it is the pivot upon which the world turns) is easily attainable once we learn the laws governing its attainment; hence, when I speak of "Success in a Year," I am not asserting the impossible, but rather shall I prove to you by a series of unique experiments, the possibilities of human life as demonstrated by a thorough understanding and a proper application of success laws.

How the Inspiration came to me.

Some few years ago, possibly five or six, a change came into my life, although at the time I did not realize that it was a change. I merely believed, if I entertained a thought on the subject at all, that it was a condition growing out of adverse circumstances; for I had known grinding poverty since childhood, and in later years bitter trouble. The views that I had cherished all through my girlhood and young womanhood were drifting away, and I had nothing on which to pin my faith. I was like a lost ship at sea.

I had always been more or less interested in everything concerning the betterment of life-conditions, and now I began to read various articles on the subject with eagerness and avidity. I read everything I could procure along this line; but as there were so many conflicting opinions—so many different ideas regarding methods of procedure, I did not realize that I was being benefited in any way, until finally, I began to evolve theories of my own. These theories were crude and rather vaguely defined at first, but as time went on and I studied much and thought more, my theories gained in strength and practicability until I was conscious of a desire to prove the real worth of my theories by actual experiment.

For a long time I would not acknowledge, even to myself, that I wanted to do this because the accomplishment of the desire seemed among the impossibilities. You see this particular thought had not grown up; it was not strong enough to stand alone. My consciousness was vaguely impressed with the newly awakened desire; but the thought was an infant not yet out of its swaddling clothes, and it lacked the strength to emerge from the intangible to the tangible. But that it did emerge with an energy capable of transmitting itself into action, this, and succeeding articles will prove. On the instant my infant desire made its debut as a "grown up" thought, a message by wireless was flashed to my brain which came as a sort of shock because it presented a plan complete in every detail, showing me how I could attain that which I had always wanted more than anything else on earth, namely: SUCCESS, and that I would not have to wait for it an indefinite length of time, but could have it inside a year or less, if I wanted it that way. And I DID want it that way. Furthermore, I am going to tell others—tell YOU, just how it is accomplished

—this attainment of success. I am going to give you the full details of each experiment, so you too, can go and do likewise—if you wish.

And who does not wish success!

REVIEW OF HALF A CENTURY.

Editor RURAL WORLD: During the first half of the recent century, farming operations in many cases, were conducted much differently from what they are now. The plow with the wooden moldboard in use in my father's time disappeared before I was born, the cast iron one taking its place. Cast and wrought iron points were in use, and the small boy had to take the latter article to the blacksmith shop every third or fourth day for sharpening. Iron and wooden toothed harrows were both in use. In shoeing horses, the smith carefully saved all the wornout shoes to hammer up on dull days and make new ones of the old iron, and at odd times the nails for shoeing were made by hand from long slender rods bought at the village store. The flail was the threshing machine in use in those days, but buckwheat was always threshed on the barn floor by horses, the kids riding around in circus fashion, while two of the older boys shook up the straw, one keeping in the center and the other on the outside, and each one working toward the other. Buckwheat cakes were the staff of life in those days in winter, and I must now tell how they were made and cooked. The batter was prepared much the same as for wheat pancakes, but the secret for having good cakes was to have some dough left over each time in the bucket which was to be placed near the stove and kept warm, so it would get slightly sour and make the next mixing light by putting in soda. The first mixing never made good cakes as they were always heavy. I never saw a cook stove until nearly grown, and the stove in use at our place was one of those large old-fashioned flat topped tin plate stoves that were invented, I was going to say, during the Dark Ages, but that is too far back. Mother's stove was smooth and bright on top, and she had her hired girl at meal time pour some two dozen cakes at one baking on its upper story, and while our folks were eating, the girl was kept busy baking. Very little wheat flour was consumed at our place in the winter season in those days so long ago, as we all preferred the buckwheat flour, and it was very cheap, as two acres would grow enough grain to winter a large family. As a summer diet the cakes are not healthy. I will have more to say on the subject of woman's work in the house at some time in the future.

The growing of flax was somewhat profitable in those by-gone days, as the men and women manufactured the fibre into clothing and other useful articles right at home, and thereby saved running up a large bill at the dry goods house. I have a faint recollection of seeing my father and three or four older brothers at work pulling flax in a patch of an acre or two. They pulled the flax so as to get the whole stalk to the ground, which made the fibre a few inches longer than if cut with the scythe. The straw was bound up into small sheaves, as it was easier to thresh in small bunches. After the shocks were dry, the sheaves were tied up in large bundle, with rye straw for bands, some two dozen sheaves being put in the mow, to stay there until mid-winter, when deep snow made it uncomfortable for outdoor work. The boys then went to work and pounded out the seed by striking the sheaves on a solid block of wood. The sheaves were again packed in bundles and thrown up in the mow, to stay there

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until spring came, when the sheaves were hauled to the meadow and opened and spread down in long rows to bleach in sunshine and rain, and partially to rot the waste material so that it could be more easily separated from the useful part. Flax breaking was the next job in this long tedious process of manufacturing home-made linen. The breaking machine was a cheap, home-made affair, and it was used to break and throw off the woody, useless part of the flax. After breaking the flax, there were still some small particles of waste matter clinging to the fiber which it was necessary to remove, and this was accomplished by dressing the flax, as they called it, and this was a simple process whereby a wooden two-edged sword was used for striking a handful of the flax a few times. The flax was now clean, but there was always some tangled stuff still in the bunches, and this was combed out by drawing the bunches through the sharp spikes of the hackle a few times. The flax was now clean and ready for the spinner. The tangled stuff that the hackle combed out was made into ropes by the boys, and these ropes were very durable. Spinning wheels were a common article of furniture in those days, and most urchins liked to hear the peculiar sound the machine made while in motion. Weavers were numerous at that time, and our folks hired them to do our weaving. The linen was made into clothing, tablecloths, towels, grain sacks, wagon covers, and other useful articles.

I may have something to say in the future as to the manufacturing of home-made woolen fabrics among the old-timers—Indeed, there is much more to say before the whole story can be told of farm life in, and out of doors, in the days of our grandparents.

J. M. MILLER.

NEAR-MAPLE SYRUP.

An excellent syrup for griddle cakes, one which you can scarcely believe is not real maple, is made as follows: Take one cupful of brown sugar, two cupfuls of white sugar, two cupfuls of boiling water, boil a few minutes, and when cool add five drops of vanilla extract.

CHOCOLATE BLANC MANGE.

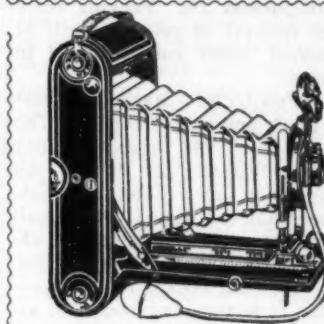
Chocolate blanc mange, which is a most satisfactory and nourishing dessert, is prepared as follows: Scald two cupfuls of milk. Dissolve four tablespoonfuls of chocolate powder or of grated powder in a quarter cupful of water, and add three tablespoonfuls of cornstarch moistened with a quarter cupful of water. Then pour in the scalded milk, stirring all the time, and cook for five minutes. Beat up one egg and add it and stir for a few seconds. Pour into wet molds and when firm turn out.

By eating slowly and chewing thoroughly we learn to enjoy better the taste of things.

OLD TIMES AND CUSTOMS.

Editor RURAL WORLD: Being housed up with grip, and it being severe winter weather, will write of old times and customs in Cape Girardeau County, Mo., as told me by my maternal grandmother, who died in 1906, in the 87th year of her age. Our home was at the same place for 31 years. The period covered forty years, from 1820 to 1860. Grandma's father, Alexander Miller, with his and several other families, came to Cape Girardeau County from Calvert County, Maryland, in 1818, settled on a farm about five miles southwest of Cape Girardeau, on or near the Bloomfield gravel road. Our great-grandparents were members of the Episcopal Church in Maryland. There being no church of their choice here then, they joined the Methodists soon after coming to Missouri. Great-grandfather helped build the first church building in his neighborhood in 1820. It was made of logs, clapboard roof, old-time fireplace, and did service for schoolhouse as well as meeting house. It was about four or five miles south of Cape Girardeau, known as old Mount Tabor. Great-grandfather acted as steward, class leader, and exhorter the balance of his life, or for forty years. He died in January, 1861. The dwelling house contained one large living room, kitchen, upstairs or loft over living room. Cooking was done on the fireplace. Had mostly corn bread, had wheat bread only on extra occasions. Stock lived in the swamp mostly the year round. Game was plentiful, such as bear, deer, turkeys.

Wheat was reaped by reap hook, and later with cradle. Thrashing wheat was done by cleaning up the barn shed, placing the bundles on the ground and leading or riding horses around. Grandma said she had rode a horse around, as they tramped out the wheat. A Mr. Doty had a watermill down near the old fair grounds, where the farmers took their grain. For common they had ash cake, making dough and cooking in hot ashes. A johnny-cake was cooked on a clean, smooth board. The children thought it a great treat when mother gave them some dough and let them bake a johnny-cake. Every farmer kept sheep and made their own clothes. Of nights after supper mother would bring the wool in the big room, and, while father read aloud and mother knit, the children would pick burrs out of the wool. It would then have to be washed, carded, spun and woven. Girls practiced on the spinning wheel, where now they thump the piano. The preacher and family would often spend two weeks at a time at her father's. Camp meetings lasting several weeks were held at Mount Tabor and McKendree Chapel. People would come for miles in ox wagons. The girls were expected to be married by the time they were 20 years old or be called old maids. Women were called old at 50. Courting had to be done in the family room. Grandma said her and grandfather used a slate and pencil. They had their house-raising and gatherings, corn shuckings of evenings, and had supper afterwards, when the old colored men, four of whom would make a saddle by crossing their hands, and would then mount the man of the house thereon and march around the house singing their old plantation songs. Men and women smoked tobacco of their own raising. It was a common thing, grandma said, for Indians to stop at her father's. They would have baskets to sell or exchange. Saw them dance their war dances in her father's yard many times. One band came once that said they came from Maryland near where her father came from. One time a band led by a big, ugly chief, grand-



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straight up. The principal qualifications of teachers in those days were knowing how to wield the rod and make goose quill pens. The children did not have variety of lunch. Grandma said she felt sorry for two orphan brothers; their dinner consisted of yellow corndodger, molasses and a bottle of milk. I must close this long letter. Respectfully,

Jackson, Mo. W. O. PENNEY.

CARE OF LAMPS.

Do not leave the care of them until night, for this is dangerous. A lamp giving a good light and without odor can be had with absolute cleanliness to burner, wick and chimney. All in constant use should be filled each day, the wick trimmed and burner wiped off, as well as washing the chimney and shade. Never clean lamps on a table where food is prepared but have a special place for the work. Spread several newspapers over the table or shelf and upon these set the various parts. Some housekeepers think it better to wipe off the burned portions of the wick instead of cutting it. The main thing is to remove it evenly. Any pieces of wick dropped on the burner will cause an odor when the lamp is lighted. About once a month remove the wick and boil the burner in hot soap suds or in a solution of washing soda. Wipe the inside of smoky chimneys with tissue paper before washing them. Care should be taken that they are thoroughly dry or they will break easily when heated. When first lighting a lamp keep the wick low to allow the chimney to heat gradually, and never leave it immediately after lighting. Many a ceiling has been ruined by a smoky lamp.

COLD-AIR BOX KEEPS WINTER FOOD.

It is well to remember the usefulness and economy of a screened cold-air box built outside a north window as an adjunct to the refrigerator. In the winter it is the perfect substitute for the refrigerator, and at all times it is the best place for cooked foods.

Smiling will not do any damage to the face. A laughing wrinkle is as ornamental as a dimple.

Every mother should appreciate the wisdom of encouraging home hospitality and should be particularly interested in having her sons' friends entertained in her home.

WEEKLY MARKET REPORT

**Cattle and Hogs Firm—Eggs Higher
—Butter Firm—Vegetables Dull—
Fruits Steady.**

CATTLE—The beef steer offerings were fair when compared to the runs of the other classes of killers, but there was a good demand and values ruled steady. Quality was fair to good. Nothing choice or prime in the steer line offered, but a drove of good weight fat killers sold at \$8 per hundred weight. Other good weight cattle sold from \$7.40 to the top; fair grade steers sold from \$7@7.40. Packers took many of the light-weight, thin flesh cattle and paid steady prices. Yearling steers were scarce but whenever shown sold steady.

Killing heifers made up a goodly proportion of the showing and bad weather made traders anxious to clean up early. There was a good demand for this class of beef both from packers and outsiders, and the movement was active with prices strong. The good quality kind predominated and odd head sold as high as \$8 per hundred weight. Most of right weight good fat kind sold from \$6.50 to \$7 and the medium kind sold from \$6 to \$6.50. Only a few lots of common heifers were offered and these found a ready outlet at steady prices.

Strictly good beef cows were scarce and sold at strong prices. Several head reached \$7. Medium to good cows were in fair showing, but a good demand prevailed and prices were strong to a dime higher.

The run of stock and feeding cattle was light and the market developed no new features. Prices on stock and feeding steers continued at a high level, but moderate discounts are arriving and it is no trouble to get steady prices. Feeder offering was limited to a few odd bunches and sold at good figures. The stocker offering was also below the average for a Monday session and good prices were in effect.

Quarantine supplies made up a good percentage of the cattle run with an estimate of 55 cars of about 2000 head. Steers were in moderate supply as canners and yearlings made up the big end of the offering.

Packers placed generous orders for steers and the light showing changed hands at steady prices. Mississippi contributed the big end of the steers and a string from that state that averaged 865 pounds sold for \$6.70, the top of the day. The balance of the steers were light weight, common quality and they cleared between \$4.75 and \$5.15.

The canner and cutter offering was fairly generous, but none too large for the demand and the trade ruled active with strong prices in effect. The big end of the canners sold at \$4.10 and up to \$4.25 and cutters reached \$4.50. Yearlings and heretics were again the butt of bearish tactics and sold lower. The loss on the good kind was limited to 10@15c, but on the common grade 25c discounts were frequent.

Poultry, Butter and Eggs.

EGGS—Higher and firm, a fall of snow causing an active speculative demand; besides the fact that Lenten season begins Wednesday increased the consumptive inquiry. Offerings liberal both here and in the country, but being firmly held. Quote at 22½c, including new cases, 22½c in second-hand cases and 22c cases returned and miscellaneous lots from 16@17c for storage up to 20c for good run.

BUTTER—There is a temporary scarcity of fresh stock, owing mainly to delays of freight in transit. But market on tub stock rules quiet and unchanged. Good roll was in demand and firmer, as well as country packed (packing stock) and some lots brought an advance. Current makes: Creamery—Extra, 34c; first, 29c; seconds,

27c; ladle-packed, 23c. Packing stock (average receipts of roll included) at 18½c—sweet fresh roll wrapped in cloth more.

LIVE POULTRY—Market almost bare of stock and values nominal. The few coops that sold brought fancy prices, but demand was limited and no change from those ruling last week. Turkeys—Choice dressing, 18c; small and poor, 11c. Fowls, 12½c. Chickens, 13c; staggy young roosters, 10c; broilers, 16c; old cocks, 7c. Geese—Fancy fat, 12 pounds and over, 13c; average receipts, 11c; poor or plucked, 10c. Ducks, good run, 16c; poor or plucked less. Capons—7 pounds and over, 18c; 6 pounds and under, 15c; slips, 14c. Guinea chickens—Round, per dozen, \$2.75.

DRESSED ICED POULTRY—Very little offered. Values firm on choice, well-handled stock; nominal on inferior country dressed. Turkeys easier, being less desirable now that the meat is flabby, stringy or coarse, instead of being plump and attractive. Turkeys—Selected dry-picked, 20c; choice scalped, 19c; poor and light, 13c. Fowls—Choice, 13½c; springs, choice, 14c; broilers, choice, 17c; cocks, 8c. Geese—Fancy fat, 15c; ordinary, 13c. Ducks—Fancy fat, 18c; ordinary 17c. Capons—Choice, 8 pounds and over, 20c; average run, 17c; slips, 15c.

Provisions.

Market very strong, with prices advanced on pork, steam lard and loose d. s. sides, and jobbing prices on boxed d. s. meats and plain bacon ¼c higher. Green s. p. and s. c. meats unchanged.

PORK, f. o. b.—Standard mess in a jobbing way nominally at \$19.50.

LARD—Prime steam nominally 9.85c to 9.95c f. o. b. close. Kettle-rendered at 10½c in tierces.

GREEN MEATS—Hams—10@12-average 13@13½c, 12@14-average 13@13½c; 14@16-average, 12%@13c; 18@20-average, 12%@13c; skinned hams, 12½@14c; bellies—heavy to medium, 11@11½c; 6@8-average, 14½c; 8@10-average, 13¾c; 10@12-average, 13½c; 12@14-average, 13½c; shoulders, 9%@10c; skinned shoulders, 10½@10½c; picnics, 8%@9½c; pork loins, 11@11½c for light and 10½@11c for heavy; lean butts, 10½@10½c.

Vegetables.

POTATOES—Market continues dull and quiet but unchanged; supply liberal and more than ample for the limited demand; dealers bidding off and bids too low for receivers to consider. Car lots Northern sacked on track: Average receipts rural and burbank at 47@50c; fancy dusty stock and russet burbanks would bring more.

ONIONS—Demand limited and for extra fancy only; frosted, sprouted, etc., unsalable. Fair to extra fancy sacked red globe at 25c to 35c delivered—inferior less; sacked white at 50c to 65c delivered.

SPANISH ONIONS—At \$1.10 to \$1.20 per crate delivered.

ANISE PLANT—New Orleans at \$1.75@2.00 per sugar barrel.

BEETS—New Orleans and Kenner at 20c to 25c per dozen bunches. Old home-grown at 35c per bushel box loose.

BRUSSELS SPROUTS—Dull at 7c to 10c per quart.

CABBAGE—Held more firmly, but demand quiet and supplies ample. Bulk New York Danish and Wisconsin Holland seed at \$6.50 to \$9 per ton. Express shipment Florida crates refused for charges. On orders 65c per 100 pounds in sacks. Red cabbage dull at \$8 to \$10 per ton delivered.

CARROTS—Bulk Northern at 50c per 100 pounds delivered and sacked Eastern at 60@70c per 100 pounds delivered. New Orleans at 10c per dozen bunches and \$2 per barrel. Home-grown at 40c per bushel box.

Cattle**AYRSHIRE BREEDERS' ASSOCIATION.**

The thirty-eighth annual meeting of the Ayrshire Breeders' Association was held at the Manhattan Hotel, New York, January 9th, 1913, with about 100 members and friends present.

The reports of the different Officers and Committees showed the Association to be in a prosperous condition, both in progress of dairy publicity of the Ayrshire cow, and in financial condition.

Seventy-nine new members have been added to the membership.

The Advanced Registry work has been particularly gratifying, in that it has brought out an ever increasing number of creditable records, which spring up from various sections of the country, and from different lines of breeding.

It is worthy of notice that within twelve months we have had three cows qualify for advanced registry with records of over 20,000 lbs. of milk each, and this too, under widely different conditions, two from the favorable locality of the State of Washington and one from the hills of Vermont.

BEEF MAKING IN THE MIDDLE WEST.

Market papers have been commenting for the past several weeks on the large number of short-fed steers being marketed, and they have drawn the conclusion therefrom that supplies of fed cattle will be slim after the first of the year, and markets consequently of a skyrocket character. There are several reasons why this deduction should not be taken too seriously. It is true that a disposition to sell at this time among any considerable number of feeders would strengthen the position of the men who have put cattle up for a long feed if it were not for the continual shifting of conditions in the beef-making world. A considerable number of the men who have sold short-fed cattle recently are looking for something to replace them in the feed-lot. Illinois buyers purchased 11,000 feeding cattle in Kansas City in November this year, as against 7,000 the same month last year. Other men throughout the feeding section who had the intention of roughing their cattle through the winter are watching the market, ready to put their cattle on full feed whenever the sign looks right. If a sufficient number of feeders in these two classes decide that late winter prices will be high, and go into the feeding game, it may upset the calculations of the market prophets.

On the other hand, a large number of cattle feeders this fall were men who do not feed regularly every season, a heavy corn crop always spurring occasional feeders into action. These men have been content to sell when there was a fair profit in sight, and having had their fling they will not enter the lists again. They have a good pile of corn left, which they consider good property, particularly as grain dealers predict a higher price for corn. The prospect for higher corn will not keep anyone from feeding cattle who has become convinced that the chance for high beef later this winter is good. The heavy marketing of steers at all points since the first of December has weakened prices on them very perceptibly, but so far it has not dampened the ardor of the feeder buyers. The first half of December they paid record prices for stock cattle and feeders at the International at Chicago, as they have bought fair-flesed feeders freely at Kansas City at \$7.40 to \$7.70, prices that were 10 to 15 cents more than packers would pay for the same steers.

The large amount of money required to handle a drove of steers whose

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first cost to the feeder is sixty to eighty dollars per head is operating to hold feeders in check. They figure the increased amount of money required for interest, together with the greater amount to pay in taxes, as of sufficient weight to give them pause. Bankers are not afraid of cattle loans, though money in the West is a little tight now. They realize that no great reduction in cattle values can occur till some more cattle are bred and raised. Hence if a man wants to feed cattle he can secure the money to carry on the deal on almost as favorable terms as a year ago.

Hogs After Cattle.

Hog scarcity has had a certain influence in hastening shipments of cattle in feed lots, and will also keep some other cattle from going on feed. A good many old-fashioned feeders still require hogs to follow their cattle in the feed-lot, though taken as a whole the feed-lot, though taken as a whole lots is not nearly as important in contributing to the profit as it was before the improved and cheaper rations of feeds were used extensively. The Gatewood interests at Cleburne, Texas, are feeding 4,500 heavy steers this season. These cattle are getting a daily ration of eight pounds of cottonseed meal, and sixty pounds of silage. No hogs are required as scavengers in these feed-lots. In those sections where other feeds than corn form the basis of beef making, namely, at the cottonseed mills in the South, and at the beet sugar mills in the West, no increase over last year's feeding will be done this year. In fact, at the cottonseed mills one-fourth less cattle will be fed this year than last.

Meat consumption this winter should be heavy, even though meat prices remain high. Labor is very generally employed and wages are good. The large general crops of all kinds of food-stuffs this year will reduce the cost of many commodities within the next few months, which will permit of more meat eating even if prices do stay up. The short number of hogs available for the market and the reduced number of sheep and lambs on feed this winter will keep mutton and pork at a good figure, affording no inducement for any consumer to turn back from beef to either of them. Packers have been able to stock up their coolers slightly within the last few weeks, but they do not carry enough beef to permit them to neglect the market for any considerable length of time. They will have to buy constantly, thus reducing their chance of conducting a successful bear campaign.—J. A. R. in National Stockman.

THE NATIONAL GRANGE.

Tippecanoe City, O., Dec. 31, 1912.—The number of Granges organized and reorganized from October 1, 1912, to December 31, 1912, both inclusive, is as follows: Organized: California, 1; Connecticut, 1; Idaho, 6; Illinois, 1; Indiana, 2; Iowa, 1; Kansas, 3; Kentucky, 2; Maine, 1; Massachusetts, 7; Michigan, 6; Minnesota, 5; Missouri, 5; Nebraska, 16; New Jersey, 1; New York, 15; Ohio, 7; Oregon, 2; Pennsylvania, 14; South Dakota, 6; Wisconsin, 4. Total, 106.

Reorganized: Kansas, 1; Michigan, 1. Total, 2.—C. M. Freeman, Secretary National Grange.

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The Dairy

RAISING THOROUGHBRED ANIMALS.

The growth of the breeding industry in the Southwest in the last few years has been phenomenal and in none of the lines has there been more progress than in the raising of thoroughbred dairy animals. This prosperity has been enjoyed by the Holstein breeders in particular, and the number of herds in this section has yearly grown larger and the record of animals more numerous. These facts have not been advertised and beginners have gone East looking for foundation stock, not knowing that their neighbors were in position to fill their orders with the same class of stock as could be bought elsewhere.

In order to bring the breeders into acquaintance and to secure the profits of organization an enthusiastic meeting of Holstein breeders was held in Kansas City, Mo., Jan. 22, 1913. Geo. C. Mosher, of Kansas City, was elected Chairman and F. A. Hornbeck, of Kansas City Secretary. An executive committee consisting of these officers and also including Paul B. Johnson, of Leavenworth, Kans.; Geo. B. Dunbar, of Liberty, Mo., and L. S. Mohr, of Kansas City was selected to arrange details for an Association of breeders of Holstein cattle of the middle west.

Among the plans proposed are A. R. O. testing groups, community cow testing associations, a method of association advertising and clearing house for sale of surplus stock, an annual dairy show at some central point, with a sale in connection and another meeting, alternating one year at Columbia, Mo., and the next at Manhattan, Kans., during Farmers' Week at the colleges, thus giving the members the advantage of the instructive demonstrations in the experiment stations and of widely extending their acquaintance.

At Columbia this month there were 1,500 farmers in attendance and at Manhattan about 1,000.

It was remarkable that nearly every prominent breeder of Holsteins in Missouri and Kansas was either present or wrote, expressing a desire to join the Association.

Mr. F. P. Crocker, of Cherryvale, Kans., who has selected the nucleus of a high class herd, had never met a breeder of thoroughbred Holsteins, personally, until this meeting.

It is expected that not only all the breeders of Missouri and Kansas will join, but Oklahoma, Southern Iowa and other contiguous territory will be included in the organization.

SELLING THE CREAM DIRECT.

Gustav Schroeter, a dairyman of Ozaukee county, Wis., while at the recent dairy show at Milwaukee, told his experience in handling twelve cows from which he sells the cream, separating it at his farm and sending the product by trolley to a consumer in Milwaukee.

This man had been selling his whole milk to a creamery, but became dissatisfied with the tests, and sought in the city a customer to whom he could ship the entire product of his dozen cows.

There is one thing about the custom of this dairyman which will be frowned on by the breeders who stick out for the breeding-to-type rule. Schroeter says that for a long time he used Jersey stock only, but he thought the breed lacked hardiness, and he followed a plan of his own to better the condition. He bought a Guernsey bull and kept it with his Jersey cows for five years, and then changed back to a Jersey, breeding him to the issue from the Jersey cows and the Guernsey bull. After another five years he again changed to the Guernsey.

Whether or not breeders favor this proceeding, Schroeter says that he got

good results, at least is satisfied with them. His bull calves were sold at advanced prices, and he raised all his feed save bran alone. He feeds silage, hay and ground oats. From twelve long-time and fresh milkers he sold, in nine months, cream to the amount of \$1,062.50. For the transportation of the cream on the trolley he pays seventeen cents for each \$5 worth of cream. He feeds his skim-milk to his stock.

This dairyman uses up-to-date contrivances, keeps a Babcock tester so that he may know what his cows are doing, cools his cream in a milk-house by means of a concrete basin in which water from a well deeply driven flows from one apartment into another and is then piped to troughs for his cows.

Of course, he has a considerable income from his bull calves, hogs and poultry, not to mention that he and his family and hired man have a good living.

This is one of many instances in which the smaller dairies send their products direct to the consumer, and most of them are afforded the cheaper transportation offered by the trolley lines, that by this time have tapped some of the richest dairy sections of the Middle West.—J. L. Graff.

WHY PASTEURIZE MILK?

It is quite generally known that pasteurization, as applied to milk means heating at a temperature below the boiling point. As the boiling temperature changes some of the nitrogenous compounds, resulting in a cooked flavor, a lower heating temperature, one that does not change the milk should be substituted. After a number of years of experimental work to determine the lowest temperature and the shortest time that milk may be pasteurized and accomplish the destruction of all dangerous disease producing bacteria, as well as those which sour the milk, there is quite a general agreement that 140 degrees Fahrenheit for twenty minutes is the proper temperature.

It is an open question with many, who have the Pasteurization problem to deal with, as to whether or not it is worth the trouble. Some extra time is required to properly heat each lot of milk soon after its delivery, but if the milk is from a dairy where the cows have not been tested for tuberculosis and the methods are not above the average in the manner of caring for the milk it would be a good investment to Pasteurize.

Some of the diseases which are liable to be contracted from the use of ordinary milk are tuberculosis, typhoid fever, diphtheria and infant stomach troubles. The bacteria which cause tuberculosis may gain entrance to the milk through negligence on the part of the man who handles the milk, if he should happen to be a carrier of the disease, or by contamination of stable manure from infected cows. Typhoid fever bacteria may be introduced into the milk by flies from infected vaults or by rinsing the pails or cans with well or spring water that has become infected by draining from such a source. If there has been a case of typhoid fever at or near the dairy farm within two years there is a possibility of the milk being infected. Diphtheria is of quite frequent occurrence and the bacillus may find lodgment in the milk and infect the children of patrons who do not pasteurize. The cause of summer complaint in children is an unsettled question but it is thought to be due to the presence of large numbers of bacteria which get into the milk through manorial contamination. All of the bacteria which produce the diseases that have been mentioned in this paragraph are destroyed by the pasteurizing temperature of 140 degrees Fahrenheit for twenty minutes.—W. R. Wright, Assistant Bacteriologist, Idaho Experiment Station.

OLDEN TIMES.

Editor RURAL WORLD: While reading Friend Lyon's remembrance of olden times it sure reminded me of my boyhood days, but I can go Friend Lyon one or two better, for I well remember back to '36, and the maple sugar camp and how we boys made spicewood tea and sweetened it with maple syrup, and shooting squirrels in mulberry trees, and in the fall of shooting wild turkeys that would fly into trees as we boys walked around fence outside the cornfield, as at that time there was plenty of cane and turkeys in that country, and many farmers used the wooden mould board on their plows, but many farmers had real iron-tire wagons, but I remember one farmer who had a block wheel wagon made of poplar blocks sawed off of a log about three feet in diameter, four inches thick. You could hear it screeching a quarter of a mile, drawn by a yoke of oxen. Then there was no danger of losing control and striking a telephone post and smashing up a thousand-dollar wagon.

I remember the building of the turnpike, the Maysville and Nashville road. People even at that early day got tired of mud roads and built a rock road, and how some would ride to the toll gate, hitch their horse and walk to town one mile and carry their few groceries back to their horse. Then the cost of living was not so high as now. Why was it not? But that was in old '76 times some say now. Well, suppose it was old moss back times; we raised mighty good corn, and how is it that with all the improved machinery the yield of corn is much less than in olden times, even on new land, but leaves the good old times back in the shade.

Will Friend Lyon tell us what depth in the ground corn should be planted for the best results on average land.

An old-time reader,
Marionville, Mo. H. J. HARRIS.

FOOD IN OUR INSTITUTIONS.

Editor RURAL WORLD: To the average visitor to any of our public institutions for those feeble in mind or morals, the sight of the great joints boiling, with a garnish of vegetables, and the long tables seem to argue good living, but we are told by the poet that "things are not what they seem." The following is the actual menu copied from one such institution as served for one week, and is a fair sample of that of several more. Monday, breakfast, oatmeal; dinner, boiled meat, potatoes and beans; supper, fried potatoes. Tuesday, breakfast, boiled hominy; dinner, boiled meat, barley and rice; supper, a two-inch piece of bologna sausage, bread and molasses. Wednesday, breakfast, fried mush; dinner, boiled meat, cabbage and potatoes; supper, rice and milk, without sugar. Thursday, breakfast, one slice (if big) of fried bacon or shoulder; dinner, boiled meat, cabbage and potatoes; supper, stewed dry peaches. Friday, breakfast, oatmeal; dinner, boiled potatoes, meat and beans; supper, bread and molasses. Saturday, boiled hominy; dinner, boiled meat, rice, corn, peas, barley and tomatoes in a soup; supper, bread and molasses. Sunday, breakfast, stewed prunes, one inch of oleomargarine; dinner, roast beef, mashed potatoes, lettuce; supper, bread, inch of oleomargarine, two milk lunch crackers or two small cakes of same size as crackers. Bread and molasses, the standard at each meal, strong tea, boiled for hours for supper, coffee for breakfast, and water for dinner.

With supper at five o'clock and breakfast at half-past six, with a glance at the menu, anyone can see that there were hungry folk between times, and soon the eaters were ready to curse hominy, mush and oatmeal, "not loud but deep." But what would you do? Economy in one direction pays expenses in another, and such a discipline is a strong argument against

Rheumatism

Home Cure Given by One Who Had It
In the spring of 1898 I was attacked by Muscular and Inflammatory Rheumatism. I suffered as only those who have it know, for over three years. I tried remedy after remedy, and doctor after doctor, but such relief as I received was only temporary. Finally, I found a remedy that cured me completely, and it has never returned. I have given it to a number who were terribly afflicted and even bedridden with Rheumatism, and it effected a cure in every case.

I want every sufferer from any form of rheumatic trouble to try this marvelous healing power. Don't send a cent; simply mail your name and address and I will send it free to try. If, after you have used it and it has proven itself to be that long-looked-for means of curing your Rheumatism, you may send the price of it, one dollar, but understand, I do not want your money unless you are perfectly satisfied to send it. Isn't that fair? Why suffer any longer when positive relief is thus offered you free? Don't delay. Write today.

Mark H. Jackson, No. 558 Alhambra Bldg., Syracuse, N. Y.

Mr. Jackson is responsible. Above statement true.—Pub.

any offenses against law and order, and an inducement for any unfortunate to emulate the late lamented Dr. Foster, "who went to Gloster, and never went there again."

CLIFFORD E. DAVIS.

CORN SILAGE.

The thousands of farmers who are feeding corn silage this year for the first time will find much help for their problems in a circular on silage feeding just issued by the Iowa Agricultural Experiment station at Ames. It was written by three men who are thoroughly informed on the management of live stock, Prof. W. H. Pew, head of the department of animal husbandry of Iowa State College, John M. Evvard, animal husbandry experimentalist who has had large experience in feeding, and Prof. H. H. Kildee, dairy husbandryman. It is called Circular No. 6 and deals with silage as a ration for all kinds of live stock.

"Unlawful Iowa Weeds and Their Extermination," by Dr. L. H. Pammel, is another bulletin of practical value. It lists the weeds that are under the ban of the law and tells how they may be exterminated. It fits well into the "no-weed" campaign which is suggested for the state.

The extension department of Iowa State college has just put out a valuable bulletin on hog cholera, describing its causes, its symptoms and suggesting methods of prevention. It was written by Dr. J. D. Cline, veterinarian of the extension department of the college.

All of the bulletins may be had on request of Director C. F. Curtiss, Ames, Iowa.

OUR LIBERAL CLUBBING OFFERS.

To secure new or renewal subscriptions for COLMAN'S RURAL WORLD we offer you choice of the following combinations for \$1.00, as advertised:

Course of Lessons on Real Estate and RURAL WORLD one year, \$1.00

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Fruit Grower and Guide Book and RURAL WORLD one year, \$1.00

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Twice-a-Week Republic and Farm Progress and RURAL WORLD one year, \$1.00

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American Magazine with RURAL WORLD, both one year for \$1.75

Farm and Home and RURAL WORLD, one year each, \$1.00

Rust-Proof, Antiseptic Oil-Pad Razor and RURAL WORLD one year, \$1.00

We will renew your subscription and send the paper for one year to a friend or neighbor for \$1.00.

COLMAN'S RURAL WORLD,
821 Holland Bldg., St. Louis.

FARMERS' EQUITY UNION

NATIONAL HEADQUARTERS

GREENVILLE, ILLINOIS

NATIONAL OFFICERS

Pres.—C. O. Drayton, Greenville, Ill.
Vice-Pres.—L. F. Hoffman, Mott, N. D.
Sec'y—Miss Inez Blacet, Greenville, Ill.

Official Paper—
COLMAN'S RURAL WORLD.

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2. L. F. Hoffman, Mott, N. D.
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8. Charles Kraft, Odessa, Minn.

Our Slogan: "Farmers Must Be Co-operators"

DEFINITE INDIVIDUAL RESPONSIBILITY.

Editor RURAL WORLD: The success of the Farmers' Equity Union depends largely upon the success of our Equity Exchanges. Every member of the Union who is a farmer ought to be a stockholder in the Equity Exchange. Stockholders should meet often and hear reports of the way your business is run. You are responsible for seeing that the business is run honestly and efficiently.

Great private business enterprises owe their efficiency and success very largely to the fact that they are so organized as to create **definite individual responsibility** for the accomplishment of their purposes.

This definite individual responsibility is a feature which must not be lacking in the government of our Equity Exchanges. The sovereign power and responsibility rests with the stockholders. They must see that every director who is not in sympathy with true golden rule cooperation or who is prejudiced against the union, the sooner you weed him out the better it will be for your Exchange.

Our success depends on a very large volume of trade well managed. Work for honest efficient management and a very large patronage.

Bond the manager, balance his books weekly. Buy and sell on a safe margin. Do not cut price. Sell flour, feed, fertilizer, fencing, wagons and farm machinery at the same price as the other dealers.

This insures honest management and a safe business.

Hire a good manager and pay him a good salary. He must be a good business man and a good mixer. He must know how to handle grain and how to handle men. This will give successful management.

Prorate back all profit on the business to stockholders according to their patronage. This will down the profit system and overthrow the capitalist. It will unite the farmers more and more. It will bring more members, more stockholders and a large volume of trade.

Never prorate to the outsider. His influence is against us. We must bring him over to our side. Hold the profit system to which he clings so tenaciously over him, until his cooperating neighbors jingle the coin before him year after year, while they have gained by cooperation, and he will finally come into our camp.

Nothing will tempt the manager more than to see that his directors do not direct. The directors will be tempted to go wrong when they see the stockholders are careless or indifferent about the business.

We are not aiming to insinuate that Equity Exchange stockholders are careless, nor directors or managers dishonest, but we are very anxious to see every Exchange in the United States carry out the principles of golden rule cooperation and be a grand success. A large volume of trade and honest efficient management are a guarantee of success every time. We must work for these.

There is no conflict in our country between labor and capital. None whatever. The uprising in the industrial world is not against capital but against the capitalists who have combined to make industrial slaves of the laborers.

The success of our Equity Exchanges will mean the complete overthrow of the capitalistic system in the business world. Every true Equity Exchange will have plenty of capital but not a single capitalist.

The golden rule spirit is that every man shall have all the wealth he produces. The Equity Exchange protects him against the capitalist who would take part of what he earns.

Farmers! We have robbed ourselves and our families long enough by supporting the present business system. We have paid for automobiles, fine homes and luxuries for the other fellow and his family while our families have had only a bare existence. It is our fault. Our separation is our weakness. We must unite and cooperate. We must see that our Exchanges carry out the Equity Union By-Laws. If those directors do not follow our By-Laws throw them down and out. We, the people, are sovereign. Those we elect to represent us must not be our masters but our servants. Let us meet once a month, shake hands, become acquainted, be more friendly and more fraternal and so organize our Equity Exchanges as to create definite individual responsibility on the part of every director, every officer and every manager.

NATIONAL PRESIDENT.

ONWARD MARCH!

Editor RURAL WORLD: Business of the U. S. is taking a different turn very rapidly. We hear more and more the call for clean, righteous business, also in the political field we see so much of progressive business called progressive politics.

The Commercial Club of Chicago as a whole took well to President-elect Wilson's talk to them on clean moral business.

Wilson says our business men do not mean to be so corrupt, but they are so intent on their affairs that they have ceased to give to justice. But we are at a trying point for some will not heed the call for justice by the rank and file and with their money will try to buy off our great leaders.

The people, the rank and file, true Equity principles, true moral business must reign before contentment will be with us.

Now is the time. We need men and women who will show to the world that there is life behind this move. The President of the United States, nor the President of our union can do but little without the people's support. Some can support with their work, others with their money, and the honor and praise will go to them as it did to our forefathers who gained for us our liberty from taxation without representation.

The people must be represented and do you not wish to be one who is represented as a leader among men for the cause of justice in our business of today?

We note the men that are coming to the front in business, politics, and in the organization of our country is what we call at this hour progressive or rather in line with the new order of business. Business has become corrupt by the indifference of the people and the people are beginning to act. As our President-elect Wilson says, also our Hon. President Drayton, that

the competition by the people as parcels post and U. S. Savings Banks.

All true advancement is received by our own efforts, and the day has passed that we hope for the large concerns controlled by the few to relieve us. We must have business as we must have politics of the people by the people and for the people and it takes the people to do this.

The money and labor expended in educating the masses is the only thing that will hasten us to the hopeful end that will free all and free alike.

Just now, if you want to be helpful to your fellow man and be honored by them after you are dead and gone is to help by your deeds, to gain for the people their wants, but don't know just how to obtain.

The old capitalistic business man has done his good, that will honor him, and if he still remains on the old plan he will have to die with the plan.

Equity plan must not only come to the farmer but to all lines of trade and honor to the man who aids in bringing this about.

We have reached an age when we must look beyond selfish individual greed to be honored by the world.

As we are taught when children that it always pays to do right is applicable still as we are grown up.

Who will be our honored few in the next decade of business? Who will go down in history most honored, our President or the great (so called in the past) magnate who has lived a life of selfish greed and who has lived trying at all times to keep the people in ignorance?

It is impossible to be truly happy just trying to make yourself happy, and at all times shunning the cries of the people.

Who is standing for right? Who is standing for the \$? You will be branded. The \$ is "all right," but they were not all intended for a few.

True moral business, equal chance for all, is all that is asked by the people.

Who will aid them get this? Ignorance and indifference has placed the people where they are. Who will aid in the campaign of education to place us all happy and free.

How happy man becomes when he finds the true way to live.

Virden, Ill. V. I. WIRT.

MINNEOLA EQUITY UNION RALLY.

On February 14th, 1:30 p. m., we want our members to all be present at our Equity Rally. The national president will address the meeting.

We ask our members to each write a few postal cards to the farmers who are not members. We are determined to build our membership up to one hundred this winter if possible. We

think February 14th will be a good opportunity to gather a large crowd and we hope every member will work for it. The president is a farmer, but he makes his subject very plain and we want every farmer around Minneola to hear him February 14th at 1:30 p. m.

LEE McKISSICK, Sec.

FOWLER EQUITY UNION MEETING,
FEBRUARY 15TH.

C. O. Drayton, National President of the Farmers' Equity Union, will lecture in Fowler on Saturday, February 15th, 1:30 p. m. Subject: "The Farmer a Business Man." We want this meeting announced in the public schools. Two hundred men, women and children ought to attend this Rally.

If the weather is good we expect to run our membership to 100 at Fowler, Feb. 15th. We are working for an Equity Exchange at this place and hope to have it ready for business in time to handle the next crop of grain. We believe in the Equity idea of a large membership and a large volume of trade united and no profit taken from a single member.

C. D. McCauley, Sec.

EQUITY UNION RALLY IN MULLINVILLE, KANSAS.

We ask our members to be sure to announce our Equity Union meeting in your country school. We expect our National President to give us an address Thursday, February 13th, 1:30 p. m. Every member ought to be present and make a special effort to bring that neighbor who is not a member. As we build Equity Union we are protected in our endeavors to develop and build up our farming communities. Let us fill the hall in Mullinville, February 13th, 1:30 p. m.

W. F. SNYDER, Sec.

LINCOLN MEMORIAL.

Editor RURAL WORLD: February 12th is the birthday of Lincoln whose memory we all venerate. The question is now before the American people as to what shall constitute a fit Lincoln memorial.

The United States senate has passed a bill appropriating two million dollars for a stone monument to be erected in Potomac Park. We hope this bill will be held up in the House. We are in favor of a Lincoln Memorial, but not a Lincoln Monument. We believe this a useless waste of the people's hard earned cash. Neither are we in favor of the national road to Gettysburg as a memorial to Lincoln. This would be popular with the joy riders, but not fit memorial to the man who said, "God must love the common people or he would not have made so many of them."

Abe Lincoln was a rail splitter. He was born of humble parentage in a log cabin. He rose from his humble surroundings to the exalted position of President of the United States because he was the champion of human rights and the common people.

Lincoln will not be honored by a dumb stone monument nor by an automobile road for the joy riders of Washington City. Let Congress appropriate twenty million dollars, not two million, for the Lincoln Steel Highway from ocean to ocean. Let the states through which it passes appropriate five millions each for the same purpose and a good start would be made for a double track railroad, build solidly and fully equipped with modern locomotives and all rolling stock necessary.

Let every official and workman of this government road obtain his position on his merits and be protected by civil service. It can be done if the people bid adieu to partisanship and unite for honest efficient government.

This would indeed be a Lincoln Memorial by the common people and for the common people and worthy of the man whom the common people heard gladly.

Every product of the farm would bring more money because freight would be lower. Coal, flour, feed and all merchandise would be cheaper and the service would be better by every competing line. There will be real competition when the government builds one good double track railroad east and west and another north and south.

Nothing else would help all the people more than this. If Lincoln could speak he would say, "help the common people. I was a martyr for their rights."

Since January first every express company has lowered its rates and all their employees are instructed to render better service. Why? Because the United States government carries parcels by mail. There is real competition. The traffic of this country increases every year, and is so enormous that it is impossible for the railroads to do the business. Their rates are unnecessarily high and in many cases the service is an outrage.

The Equity Union has had some real experience the past year in shipping coal.

The Farmers' Equity Union is op-

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desirous to help both producer and consumer by bringing them nearer together. We are working out a system of intelligent distribution for the benefit of all consumers. We can lower the price of coal to our members in North and South Dakota and Minnesota by our cooperative plan if we could get honest service from the railroads. But our experience along this line has been far from satisfactory.

C. O. DRAYTON.
Greenville, Ill.

MY KNOWLEDGE OF EQUITY.

Editor RURAL WORLD: Ever since a boy I wondered why the farmers did not organize, and while still in my teens I studied the Grange, farm clubs and everything I could, for I could only wonder why the farmers did not get together. I was raised on the farm and knew nothing but farm life. Although the greater part of my life has been a farmer, I have been forced into other avocations of life and have seen much along organization work, and I can say I have seen nothing much accomplished only through organization. No one man that I know of has done much without getting the aid of others.

The greatest organizer on earth spent only three years in his organization work and he had the right cause and the right plan, and to me it looks that his greatest success was in getting workers to work his plan.

And coming down to present day organizations such as the great trusts and labor bodies, we find the stronger the organization the greater the power.

In speaking of the trusts is a great secret note which is now beginning to weaken them—we will take for instance the Standard Oil Company, and we find that they took many of their "under men" in, as they called it, and the under-men are seeing they are not in only to support the few. This trust is organized but do not cooperate to the advantage of all.

In what little I have observed I find nothing but true justice can stand and that true success means true right.

But back to Equity, as I remember well, Old Equity I mean, or the A. S. of E., where I first heard of our President, the great thing was to get one million united to hold for \$1.00 wheat, nothing said as to the justice of the thing, only a bunch of fellows thought they ought to have \$1.00 at all times for their wheat.

Next was our President calling for cooperative exchanges, or rather a true justice of doing things.

Now we have Equity on a plan that looks good to me, for any one can see justice and only justice. Of course some changes will have to be made as no man is perfect and no organization can be perfect.

But the great thing is to get together to do the right and when you get men together on these lines success is assured.

The farmer's business is to farm, and if he farms he should farm to feed the world and to do these two things it takes organization and cooperation, and what we are seeking is pure golden rule equity plan, right to all and injustice to none.

Coming down to the present day I would say I truly believe President Drayton the greatest and truest man for the cause of Equity, and if I had any objection to him at all is his lecture on one dollar wheat, and it looks to me that is a little selfishness taken from the old idea of one million united for one dollar wheat.

I am just giving my idea; as to me I care not for one dollar wheat or five dollar wheat, as long as wheat is handled on true blue principles.

My idea of farming is to farm and feed the world to the justice of all the world, also to the glory of God.

I write this for what it is worth.
Virgen, Ill.

V. I. WIRT.

EQUITY UNION RALLIES BY THE NATIONAL PRESIDENT.

Feb. 8, 1:30 p. m., Hugoton, Kans.
Feb. 12, 10 a. m., Wellsford, Kans.
1:30 p. m., Haviland, Kans.
Feb. 13, 1:30 p. m., Mullinsville, Kans.
Feb. 14, 1:30 p. m., Minneola, Kans.
Feb. 15, 1:30 p. m., Fowler, Kans.
Feb. 17, 1:30 p. m., Meade Kans.
Feb. 18, 1:30 p. m., Plains, Kans.
Feb. 19, 1:30 p. m., Liberal, Kans.
Feb. 20, 1:30 p. m., Tyrone, Okla.
Feb. 21, 1:30 p. m., Hooker, Okla.
Feb. 22, 1:30 p. m., Guymon, Okla.

Every member at these places is expected to see that the notice of the meeting is given in all the country schools only a few days before the date. We cannot afford to neglect these rallies which are held for the purpose of instilling the principles of the Equity Union into the minds and hearts of the people.

Enthusiasm is a wonderful force. Our President is full of it, and he inspires others with the same power. The people must be made to understand the difference between Golden Rule cooperation and the profit system which makes the rich richer and the poor poorer. The President ought to be an expert on this subject as he lectures on it every day. We depend on the members for a big rally at every one of these towns. If the crowd is there you can expect a rousing meeting, the enrollment of new members, an increase in the number of stockholders in the Exchange and new hope and life in the mind and heart of every member.

Postal Card Shower.

If every member will write ten postal cards to farmers they know, and urge them to come, giving them the correct date of the meeting, we will have a fine crowd every day and make sure of fifteen new Equity Exchanges in western Kansas this year.

NATIONAL UNION OF THE FARMERS' EQUITY UNION.

DUNKLIN COUNTY (MO.) NOTES.

Editor RURAL WORLD: Yesterday, Jan. 19, the frogs were croaking and a neighbor just told me that one got his head cut off on the Frisco railroad. But the frogs will likely have to look through glass windows before spring. In 1871, on Jan. 14, I saw two snakes lying out near Akron, Ohio, thirty miles from Lake Erie. But we had plenty of zero weather in February. The second week of January we had an immense rainfall. We had a nice fall for gathering crops, with very little rain. Farmers got all crops out but a little cotton. They got the crop picked at a reasonable price, most of it at 75 cents per 100 pounds. Then the ground was so solid that timbermen got out an immense amount of timber and farmers got time to repair some. But on Jan. 6 and 7 we had about three inches of rain. Then on the 10th and 11th it cut loose and rained almost incessantly for 36 hours. The rainfall in that time was about 6 inches, making near 9 inches for the week. Some said the water was higher than they ever knew it in some localities.

And still it rains. The coldest weather we have had was about the middle of December, when one day the mercury dropped to about 8 above zero.

Crops were not very good the past year. It rained too much at a critical time, especially for clay ground. Cotton was a light crop, but it brought a good price. Corn was spotted, some very good and some bad on low lands.

For a while corn was dull sale at 40 cents, but is selling now at 50 cents. Hay was good where farmers had meadows, but so many meadows were killed out by the drouth a year ago, and then the freeze, and we might



ELGAS, 601 Pine Street, THE OPTICIAN.

Begin the New Year With a Pair of Glasses

That will enable you to see prosperity ahead with clearness and accuracy. I am the man that can do this for you.

LOCK! LISTEN!

Here is a Bargain! 120 acres; good buildings, fruit, 80 acres cultivation, clover and timothy. In sight of depot, county seat, creamy, canning factory; half mile fine river front, summer resort and farm, fine view, good timber, rich soil, some bottom land; six cows, four horses and all other stock and farm tools; feed to last until grass; eight acres rye. All go for \$5,000. Speak quick if you want a bargain. Old age; no help. C. F. Stephens, Galena, Mo.

Money Wanted on Real Estate

Owing to financial reverses in other business enterprises, I am compelled to raise a considerable sum of money on my three farms or sell them outright, which I very much dislike to do. I would consider a partnership with an agreeable party having sufficient ready cash to relieve my pressing obligations. My three farms consist of 700 acres, with 300 cleared land, all level and very productive. I am a live stock fancier and would appreciate a partner of like inclinations or a loan from such a one.

L. G. CROWLEY,

Black Jack, Ark.

Electric Lights Like City Folks Use

FOR 25¢ A MONTH.
(4 lights, 4 hours per day)
Cost nothing if you use ordinary farm engine a few hours a week. Lights in barn, too. Safe—clean—convenient. Plants, including standard Chloride Accumulator, \$125 up, without engine. Install now and enjoy the long winter evenings as never before. Special offer on first plant in each county. For free estimate and literature, write or see H. J. WOBUS, Electrical Engineer, 915 Locust St., St. Louis, Mo.

Electric and Water Systems.

Water Wheels and Rams.

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No cats, poisons or traps needed. Learn the secret and keep them away forever. Sure, yet perfectly harmless except to rodents. Secret originally cost \$100, but we will send it postpaid for only 25c.

The above advertisement has appeared in many magazines. I will send you the genuine receipt for this RAT AND MOUSE Exterminator (which I know to be O. K.) and 20 fine assorted postcards for 12c. This is a Bargain. Address, Milton Bowe, 4421 17th Ave., Rock Island, Illinois.

S. C. WHITE LEGHORNS.—Fine lot of lovely white cockerels. Quality high, prices low. Write Ernest Haynes, Prairie du Rocher, Illinois.

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ROSE COMB WHITE LEGHORN EGGS from standard-bred yearlings. Two dollars for fifteen, prepaid. Quantity rates. Field Bros., R. 2, Cape Girardeau, Mo.

CAREFULLY selected and properly dried pure "Golden Beauty" Seed Corn. This is an exceptionally fine golden yellow corn, ears from 9 to 12 inches long with small cob and large grain, indicating strong germ. Price, \$2.00 per bushel, tipped, shelled and graded. Sample sent by mail on request. Wm. C. Krieg, Edwardsville, Ill.

One Thousand Agents Wanted to sell a Self-heating Sad Iron. Fuel and labor saver. Pay salary or commission. Agents make \$15.00 to \$20.00 per day. Write Imperial Sad Iron Co., Memphis, Tenn., Box 90.

500 MEN 20 TO 40 YEARS OLD WANTED at once in every state for Electric Railway Motormen and Conductors; \$60 to \$100 a month; no experience necessary; fine opportunity; no strike; write immediately for application blank. Address Manager, W-260, Dwight Bldg., Kansas City, Missouri.

FRIENDLY advice to sufferers; free; all chronic ailments. Dr. Allen, 4350 Taft Ave., St. Louis.

FINE LEAF TOBACCO for sale. Two years old. Send stamps for free samples. W. L. Parks' Tobacco Co., Adams, Tenn.

IT'S USELESS, WITHOUT USEFUL to try to get all poultry experiments and full report monthly of National Egg Laying Contest. A useful, practical, sensible poultry paper, six months' trial subscription for 10 cents. Send today. USEFUL POULTRY JOURNAL, Trenton, Mo.

POSITION WANTED as foreman or manager on farm; references given on request; married. Address Foreman, Rural World, St. Louis, Mo.

"FOUR BAY HORSES," and "Brother Andy," March and Two-step, will be mailed to you for 25 cents. This music delights young and old. Address: Mrs. Lloyd Ritter, R. R. 2, South Whitley, Ind.

FARM FOR SALE.—My 85-acre farm, located 1/4 mile from town. For further particulars address T. T. Potts, Centralia, Mo.

BARRED PLYMOUTH ROCKS. No. 1 Farm Stock.—Price, \$1 per setting of 15. MRS. C. D. LYON, R. 1, Georgetown, Ohio.

NOTES FROM AN ILLINOIS FARM.

Editor RURAL WORLD: When my little girl wants to give me a piece of candy or other tid-bit, she will come and say: "Shut your eyes and open your mouth." While playing with other children the other day, she got it a little mixed and said: "Open your eyes and shut your mouth," and I thought what a good thing if some of us, yes, most of us, would do that.

Our teacher in rhetoric emphasized this thought when he gave us the rule, "If you have nothing to say, say it," i. e., say nothing. However, we shall not pursue this thought farther, lest some one would say, "Physician, heal thyself."

We have had a great deal of rain recently, but nothing destructive. Winter wheat, which is, of course, the only kind we raise, is in fine condition, and unless we have very bad weather hereafter we shall likely have a good crop.

There are a great many farm auctions here. There has scarcely been a week since last September but that I could have attended one within a few miles. I attended one last week and was asked to act as clerk at three others to be held soon. There will be twelve changes of tenants within two miles of our home. Some "moving to town," some from one farm to another, and one to Oregon.

An effort is being made to have monthly farmers' institutes, and I had planned to catch Mr. Lyon on his way home in March, but it seems he will return sooner, and on account of short notice we may not be able to manage a meeting for him. I was told that I would be on the program of the first one held, but did not get notice of the time till noon of the day of the meeting and, with eight miles of very bad road intervening, I could not attend.

We started the plow to-day on sod for corn, and want to push it till done.

AGRICOLA.

CAN WE KEEP THE BOYS ON THE FARM?

Editor RURAL WORLD: No, not if present conditions prevail, I have enjoyed the reading of over a hundred articles and speeches on this subject, but I have failed to find one that deals with the actual facts or proposed sensible remedies to stop the escaping of the boys from the farm. Farmers of good standing educate their boys and this boy finds the occupation in cities more pleasant than the farm life. Poor farmers have not the means to keep their boys on the farm, for it takes money or credit, neither of which is enjoyed by a poor farmer, to start a boy farming even as a tenant. The nerviest of all I have read about the subject is the argument put forth, evidently by well to do city people, who do not need to look close at a \$50.00 bill when they dare spend it for leisure, that farmer should prepare for plenty of good leisure for the growing generation. These people know that good leisure is a mighty factor and as it is nothing for them to prepare leisure for their children, they think farmers can do the same. They are either misled through the papers of the country, who never fail to burst about the prosperity of the farmers or they do judge matters from their own standpoint. They do not imagine a second that over four million of farmers have to turn a nickel about before they dare spend it for leisure, nor do they imagine that just so many farmers have not sufficient income to feed, clothe and shelter themselves according to natural wants. Why should they? Papers all over the country burst about the tremendous prosperity of the farmers and even some farmers claim we are rich. All think we withhold leisure from the youth through an act of avarice, such as good automobiles, or a good driving team, good shows, good

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government monopoly of the money and all the banks would furnish means wherewith a young fellow could obtain a farm. Only if the farmers co-operate in the operating of this expensive farm machinery which is profitable beyond question, can the farmers stop the accumulation of the land into the hands of the people that have the means to operate this machinery. Only through the changing of the present marketing system can the farmers enlarge their income so they would be able to live a life worth while.

Kennedy, N. D. ADAM SCHARICK.

BULLETIN ON COMMERCIAL FERTILIZER.

The Experiment Station at Pullman, Wash., has just issued Bulletin No. 110, on "Commercial Fertilizers," by Elton Fulmer, State Chemist.

This bulletin is primarily the biennial report of the inspector of fertilizers sold in the state, as required by the Fertilizer Law. It contains detailed reports of all the analyses of samples of fertilizers collected by official inspectors, or sent in by manufacturers, during the years 1911 and 1912. The analyses show that, in the main, the fertilizer dealers of the state are conscientiously complying with the terms of the law.

The results of the analyses will serve as a guide to purchasers of fertilizers, as they show the plant food values and comparative commercial value of the different brands of fertilizers sold in the state.

The bulletin also contains a thorough discussion of the principles underlying the use of fertilizers and the value as plant food of the different elements usually present in commercial fertilizers. It will, therefore, serve as a valuable reference book to all who are using fertilizers.

Copies of the bulletin may be obtained free by writing to the Director of the Experiment Station, Pullman, Wash.

IT PAYS TO ADVERTISE IN THE RURAL WORLD.

Roanoke, Mo., Jan. 30, 1913.
COLMAN'S RURAL WORLD,
St. Louis, Mo.

Gentlemen—The RURAL WORLD ad has brought more orders than we could fill. So please discontinue the ad for the present and send bill for same, and oblige, yours truly,
H. C. TAYLOR.